S Energy Research
333.805 Information System
O7eris quarterly report
V.4, No.1

ENERGY RESEARCH INFORMATION SYSTEM

Projects Report

A Program of:

The Old West Regional Commission
Billings, Montana

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Vol. 4, No. 1
June 1979

Projects Nos. 00001366 through 00001464

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ENERGY RESEARCH INFORMATION SYSTEM

PROJECTS REPORT

VOLUME 4, NUMBER 1

OLD WEST REGIONAL COMMISSION

BILLINGS, MONTANA

June, 1979

PREPARED BY

COMPILERS: JANET JELINEK AND CATHY BOYD

OLD WEST REGIONAL COMMISSION

HEDDEN-EMPIRE BUILDING, SUITE 228

BILLINGS, MONTANA 59101

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Helena, Montana 59601

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INTRODUCTION

The Energy Research Information System (ERIS) is a service administered by the Old West Regional Commission in response to the need for current information on research activities in the region's rapidly growing and changing field of energy. Cooperating with the Commission on ERIS are the U.S. Geological Survey and Argonne National Laboratory.

The purpose of ERIS is to compile and make available to the users in the Region an up-to-date inventory of ongoing and recently completed energy-related research projects.

The term "energy-related" covers a broad spectrum of activities and encompasses a large volume of research. Nonetheless, ERIS attempts to report energy-related research projects in as comprehensive a manner as possible. The subject areas covered are: reclamation, energy conversion, and land use research, socioeconomic impact and renewable energy resources studies, as well as programs related to energy development which do not necessarily involve research.

By facilitating communication among researchers and allowing public and private sector decision-makers access to Regional energy research, ERIS aims to improve information exchanges among energy research users. The system can be used as an aid in conducting research, avoiding duplication of effort, and pinpointing areas of additional research need.

The geographical focus of ERIS is the Old West Region--Montana, Nebraska, North Dakota, South Dakota, and Wyoming. However, peripheral states or nationwide efforts are covered as they are related to regional work.

The compilation of energy research projects in the ERIS reports has been accomplished by combining ERIS's own information-gathering efforts with those of other clearinghouses--most notably, Oak Ridge National Laboratory, the Smithsonian Science Information Exchange, the Montana Energy Office, the North Dakota Regional Environmental Assessment Program, the University of Wyoming, Rocky Mountain Institute on Energy and Environment and other energy agencies in the Old West Region.

Use of the Energy Research Information System

ERIS Projects Reports

ERIS information is stored in a computerized data base. As the data base grows, periodic reports are printed which list the latest contents of the data base. the first such report was issued in November, 1975.

Access to ERIS is available through subject oriented sections and through the indexes located at the end of the listings. These indexes are: Location, Personal Name, Organization, and Subject Keyword. Instructions for the use of the indexes precede each section.

Please note that ERIS provides a listing but not the actual document referred to in the publication section of each abstract. Document delivery is best accomplished by contacting the local library system or by contacting the investigator or sponsor of any particular project.

All ERIS listings are available from the ERIS staff or from the National Technical Information Service, 5285 Port Royal Road, Springfield, VA 22161

Computer Search Service

The holdings of ERIS are computerized, allowing for flexibility in conducting special searches of the data base. The computer search service is offered as a complement to the ERIS Projects Reports. If your inquiry concerning energy research cannot be answered by manual use of the reports, contact a member of the ERIS staff and request that a special search be conducted.

ERIS is part of the Research in Progress File (RIP) and the Energy R&D Project File (ERD) of the U.S. Dept. of Energy's RECON Information Retrieval System. Designated RECON users may also access ERIS through their own terminals.

****

Please direct your inquiries to: ERIS,
Old West Regional Commission,
228 Hedden-Empire Building, Billings, MT 59101
406/657-6665 (commercial) or 585-6665 (FTS)

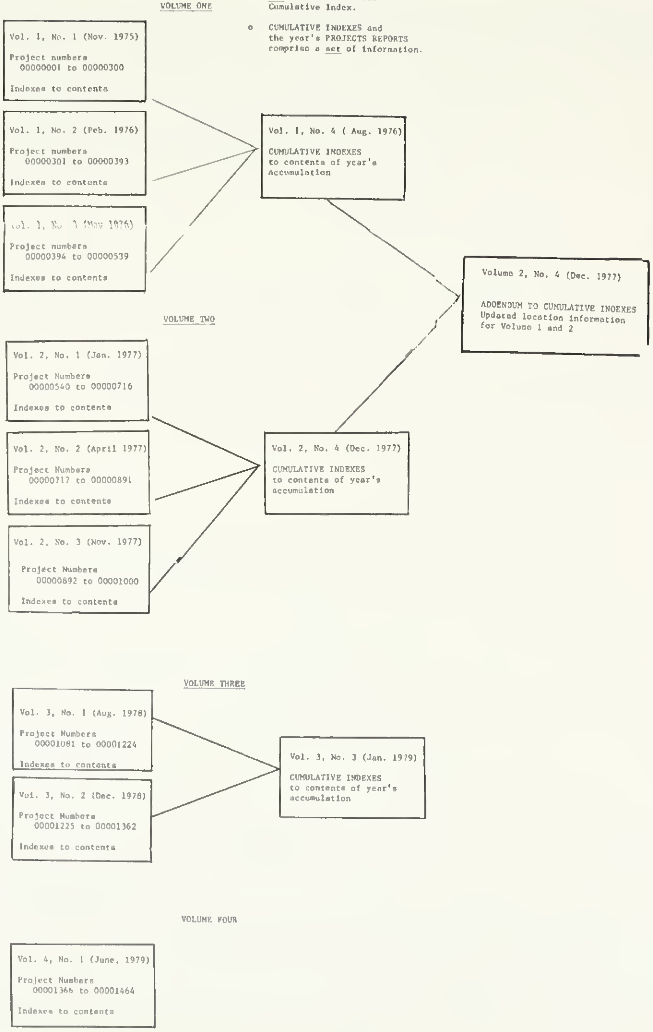
The Old West Regional Commission is a Federal-State partnership designed to address regional economic problems and stimulate orderly economic growth in the states of Montana, Nebraska, North Dakota, South Dakota and Wyoming. Established in 1972 under the Public Works and Economic Development Act of 1965, it is one of eight such commissions in the United States.

The Land Reclamation Program at Argonne National Laboratory is conducting coordinated applied and basic research into the physical and ecological problems of land reclamation related to surface mining of coal and developing cost-effective techniques for reclaiming/rehabilitating mined coal land to productive end uses. The purpose of this program is to conduct integrated research and development projects focused on near- and long-term reclamation problems in all major U.S. coal resource regions including Alaska and to coordinate, evaluate, and disseminate the results of related studies conducted at other research institutions.

The function of the Water Resources Division of the Geological Survey is to provide data and reports on the availability and quality of water required for conversion of coal and oilshale to other forms of energy, to monitor the effects of mining and related developments on regional water systems, and to conduct investigations and research in methods of measuring and predicting the effects of mining and associated operations on local and regional water users.

HOW ERIS IS ORGANIZED

- o PROJECTS REPORTS (formerly called Quarterly Reports) contain descriptions of energy research in the Old West Region.
- o Each REPORT is indexed according to Location, Name, Organization, and Subject.
- o CUMULATIVE INDEXES are provided once a year to incorporate previous indexes of the year's PROJECTS REPORTS under one cover.
- o Project descriptions are not included with the Cumulative Index.
- o CUMULATIVE INDEXES and the year's PROJECTS REPORTS comprise a set of information.


VOLUME ONE
Vol. 1, No. 1 (Nov. 1975)
Project numbers 00000001 to 00000300
Indexes to contents
Vol. 1, No. 2 (Feb. 1976)
Project numbers 00000301 to 00000393
Indexes to contents
Vol. 1, No. 3 (May 1976)
Project numbers 00000394 to 00000539
Indexes to contents
Vol. 1, No. 4 (Aug. 1976)
CUMULATIVE INDEXES
to contents of year's accumulation
Volume 2, No. 4 (Dec. 1977)
ADDENDUM TO CUMULATIVE INDEXES
Updated location information for Volume 1 and 2
VOLUME TWO
Vol. 2, No. 1 (Jan. 1977)
Project Numbers 00000540 to 00000716
Indexes to contents
Vol. 2, No. 2 (April 1977)
Project Numbers 00000717 to 00000891
Indexes to contents
Vol. 2, No. 3 (Nov. 1977)
Project Numbers 00000892 to 00001000
Indexes to contents
Vol. 2, No. 4 (Dec. 1977)
CUMULATIVE INDEXES
to contents of year's accumulation
VOLUME THREE
Vol. 3, No. 1 (Aug. 1978)
Project Numbers 00001081 to 00001224
Indexes to contents
Vol. 3, No. 2 (Dec. 1978)
Project Numbers 00001225 to 00001362
Indexes to contents
Vol. 3, No. 3 (Jan. 1979)
CUMULATIVE INDEXES
to contents of year's accumulation
VOLUME FOUR
Vol. 4, No. 1 (June, 1979)
Project Numbers 00001366 to 00001464
Indexes to contents

REPORTING FORM
ENERGY RESEARCH INFORMATION SYSTEM
Old West Regional Commission

INSTRUCTIONS: Please complete the relevant categories of the Reporting Form for each energy-related project currently being conducted or recently completed by your organization in the States of the Old West Region. If an umbrella project covers several separate studies, fill out a form for each one, as well as for the umbrella project. If you want any of the information you provide to be omitted from ERIS publications, make a note of this in Category 17, "Special Instructions for Proprietary Information."

In order to assist us in assigning keywords for computer access to your research information, we ask that you circle the most descriptive words and phrases of the Title and Abstract. If necessary, add additional terms of your own choosing.

If you are amending previously submitted information, please note this on the Reporting Form.

PLEASE RETURN COMPLETED REPORTING FORM(s) TO: ERIS, OLD WEST REGIONAL COMMISSION, 228 HEDDEN-EMPIRE BLDG., BILLINGS, MT 59101. PHONE: (406) 657-6665 (Commercial) or 585-6665 (FTS).

1. Date prepared ____________ Respondent ____________

Check one: ________ Original Information ________ Amendment to ERIS Project No. ________

2. **PROJECT/PROGRAM TITLE** (circle keywords) ____________

____

____

3. **PROJECT NUMBER** (descriptive no. used by your organization) ____________

4. **PRINCIPAL INVESTIGATOR** (include organization name and address)

INVESTIGATOR ____________ PHONE NO. ____________

ORGANIZATION ____________

ADDRESS ____________

____

OTHER INVESTIGATORS:

____

____

5. **RESEARCH INSTITUTION** (institution/organization where or through which research is performed if different than 4 above)

ORGANIZATION ____________ PHONE NO. ____________

ADDRESS ____________

____

6. **COOPERATOR(S)** (organization(s) which provides time and/or resources toward the project but does not conduct, supervise, or fund the research)

ORGANIZATION ____________________

PROJECT MONITOR ____________________ PHONE NO.__________

ADDRESS ____________________

____

7. **PRIMARY SPONSOR** (organization which provides funds)

ORGANIZATION ____________________

PROJECT MONITOR ____________________ PHONE NO.__________

ADDRESS ____________________

____

8. **OTHER SPONSORS** (provide names of organizations which provide secondary funds)

____

____

____

9-10. **FUNDING AMOUNTS**

Type of accounting period:________Calendar year________Fiscal Year

Enter the **TOTALS** from each sponsor in the appropriate blanks. If the breakdown is known, enter the yearly amounts in the appropriate blanks.

Organizations from 7 and 8 above	197____	198____	198____	Total
(Primary) ____________	$ ______	$ ______	$ ______	$ ______
(Other) ____________	$ ______	$ ______	$ ______	$ ______
____________	$ ______	$ ______	$ ______	$ ______
____________	$ ______	$ ______	$ ______	$ ______
Total Funding				$ ______

11. **TIME FRAME:** Starting Date____________________Ending Date____________________
mo. day yr. mo. day yr.

12. **ACTUAL COMPLETION DATE** (leave blank if not completed) ____________________
mo. day yr.

13. **LOCATION:** States and Counties; other location information — Region, River Basin, Cities, Township/Range/Section, etc.

STATES AND COUNTIES ____

OTHER LOCATION INFORMATION ____

14. **ABSTRACT:** Problem, Objectives, and Approach (in free form, 100-200 words)
PLEASE CIRCLE KEYWORDS AND PHRASES. Add other descriptors if necessary.

15. **REPORTS AND PUBLICATIONS** (title, authors, report number, date, Issuing agency)

16. **AVAILABILITY OF REPORTS AND PUBLICATIONS** (indicate organization and mailing address where reports can be obtained; also indicate cost and order number if appropriate)

17. **SPECIAL INSTRUCTIONS FOR PROPRIETARY INFORMATION** (enter category number and information which you desire to be omitted from published material)

18. A. **TYPE OF STUDY OR PROGRAM**
(check all that apply)

1) ☐ Basic research

2) ☐ Applied research

3) ☐ Demonstration project or program not involving research (e.g., a community technical assistance program)

4) ☐ Environmental Impact Statement

5) ☐ Other________________________________

B. **TYPE OF DATA COLLECTED**
(check all that apply)

1) ☐ Primary data sources
  a. ☐ Field study

  b. ☐ Lab. study

  c. ☐ Both of the above

2) ☐ Secondary data sources

3) ☐ Both 1 and 2 above

C. **PROJECT AFFILIATION** (check one of the following)

1) ☐ The study described on this Reporting Form is an umbrella project or program. It encompasses two (2) or more separate studies which are subcontracted and/or of differing subject content. Please provide Reporting Forms for the separate projects or incorporate them onto this Reporting Form.

2) ☐ The study described on this Reporting Form is a part of an umbrella project or program. Please provide umbrella project name and overall coordinating organization below.

____

____

3) ☐ The study is a separate project or program in and of itself.

THANK YOU FOR COMPLETING THIS REPORTING FORM.

ENERGY RESEARCH INFORMATION SYSTEM

1.1 GENERAL

*****

00001366

PROJECT TITLE

SURVEY OF PROJECTS TO EXPAND ENERGY SOURCES IN THE WESTERN STATES

INVESTIGATORS

CHARLES M. RICH, JR.

RESEARCH INSTITUTION

U. S. BUREAU OF MINES, INTERMTN. FIELD OPERATIONS CTR.
DENVER, CO

PRIMARY SPONSOR

U. S. BUREAU OF MINES

TIME FRAME

1976 TO CONTINUING

LOCATION

STATES WEST OF THE MISSISSIPPI RIVER

ABSTRACT

THIS BUREAU OF MINES SURVEY IS AN EXPANSION AND UPDATE OF A 1976 BOM SURVEY WHICH LISTED PROJECTS TO EXPAND ENERGY SOURCES IN THE WESTERN STATES. MAPS AND TABLES LISTING THE NAME, LOCATION, AND OTHER PERTINENT DATA CONCERNING CERTAIN FUEL-RELATED PROJECTS WERE PREPARED. TABLES WERE COMPILED WHICH INCLUDE INFORMATION ON PROJECTS INVOLVING THE PROPOSED OR PLANNED DEVELOPMENT OF FUEL RESOURCES, AS WELL AS THE DEVELOPMENT OF STORAGE, TRANSPORTATION, AND CONVERSION FACILITIES. THE STUDY COVERS THE 24 STATES WEST OF THE MISSISSIPPI RIVER INCLUDING ALASKA AND HAWAII. OF THE 808 PROJECTS WHICH WERE IDENTIFIED, 219 CONCERN COAL MINES, 246 CONCERN ELECTRIC GENERATING PLANTS, AND 115 CONCERN URANIUM MINES. OTHER PROJECTS INCLUDE: COAL CONVERSION AND WASTE-TO-FUEL PLANTS; OIL SHALE AND TAR SANDS PROJECTS; GEOTHERMAL FACILITIES; NATURAL GAS PROCESSING AND STORAGE FACILITIES; OIL REFINERIES AND TERMINAL FACILITIES; RAILROADS; AND COAL SLURRY, PETROLEUM, AND NATURAL GAS PIPELINES (AS OF AUGUST 1977).

REPORTS AND PUBLICATIONS

"PROJECTS TO EXPAND FUEL SOURCES IN WESTERN STATES", U. S. BUREAU OF MINES INFORMATION CIRCULAR 8719, 1976. "PROJECTS TO EXPAND ENERGY SOURCES IN THE WESTERN STATES -- AN UPDATE OF INFORMATION CIRCULAR 8719", U. S. BUREAU OF MINES INFORMATION CIRCULAR 8772, 1978. (FOR SALE BY THE SUPERINTENDENT OF DOCUMENTS, U. S. GOVERNMENT PRINTING OFFICE, WASHINGTON, D. C. 20402, STOCK NO. 024-004-01926-3) NOTE: THE ABOVE LISTED REPORT WAS COMPLETED BY THE BOM UNDER A PROGRAM WHICH HAS SINCE BECOME A RESPONSIBILITY OF THE U. S. DOE. QUESTIONS CONCERNING THE REPORT SHOULD BE ADDRESSED TO THE DOE'S OFFICE OF PUBLIC AFFAIRS.

*****

00001367

PROJECT TITLE

CHANGE: MERCER COUNTY, NORTH DAKOTA (DOCUMENTARY FILM)

INVESTIGATORS

SUSAN CERTO

RESEARCH INSTITUTION

INDEPENDENT FILM PRODUCER (CERTO PRODUCTIONS) /
P. O. BOX 213 / HAZEN, ND 58545 / (701)748-6361

COOPERATOR

MERCER CO., N. D. ENERGY DEVELOPMENT BOARD / P. O. BOX 670 /
HAZEN, ND 58545 / (701)748-6361

PRIMARY SPONSOR

DEPT. OF ENERGY / GERALD LEIGHTON / 20 MASSACHUSETTS
AVE. NW / WASHINGTON, D. C.

PRIMARY FUNDING AMOUNT

FY78 - $25,000; FY79 - $14,500; TOTAL: $39,500

TIME FRAME

MAY, 1978 TO SEPTEMBER, 1978

STATUS

COMPLETED SEPTEMBER, 1978

LOCATION

MERCER COUNTY, N. D.

ABSTRACT

A 25 MINUTE AUDIO-VISUAL PRESENTATION DOCUMENTING, THROUGH OCTOBER 1978, THE ENERGY INDUSTRY DEVELOPMENT AND RESULTANT RAPID GROWTH AND CHANGE IN MERCER COUNTY, N. D. THE PRESENTATION IS AVAILABLE IN 3 PROJECTOR-SINGLE SCREEN SLIDE-TAPE AND 16MM FILM FORMATS. INCLUDES VISUAL DOCUMENTATION AND INTERVIEWS WITH A VARIETY OF PEOPLE AFFECTED BY THE DEVELOPMENT OF THE ENERGY PRODUCTION INDUSTRY. PRESENTATION ALSO EXPLAINS ONE APPROACH TO PLANNING FOR RAPID GROWTH: THE ENERGY DEVELOPMENT BOARD (EDB) OF MERCER COUNTY.

REPORTS AND PUBLICATIONS

FILM COPIES CAN BE OBTAINED ON A LOAN BASIS FROM THE MERCER COUNTY ENERGY DEVELOPMENT BOARD, P. O. BOX 670, HAZEN, ND 58545.

*****

00001368

PROJECT TITLE

COAL TECHNOLOGY ASSESSMENT PROGRAM

PROJECT NUMBER

(EPA CONTRACT NO. 68-02-2622)

INVESTIGATORS

SAMUEL GLORE, DIRECTOR

RESEARCH INSTITUTION

RESEARCH COUNCIL / BATTELLE COLUMBUS LABS. /

505 KING AVENUE / COLUMBUS. OH / (614)424-6424
COOPERATOR
MARK BOROUSH / KAN CHEN / UNIV. OF MICHIGAN
MICHAEL BERGMAN / U. S. EPA. OFFICE OF ENERGY. MINERALS AND INDUSTRY
PRIMARY SPONSOR
U. S. EPA, OFFICE OF ENERGY. MINERALS AND INDUSTRY
PRIMARY FUNDING AMOUNT
$1.300.000
TIME FRAME
OCTOBER, 1977 TO MAY. 1980
LOCATION
GX / MT / ND / CO / WY / UT / AZ / NM
ABSTRACT

THE PURPOSE OF THE COAL TECHNOLOGY ASSESSMENT (CTA) PROGRAM IS TO COMPARE THE ENVIRONMENTAL, SOCIAL, ECONOMIC, AND INSTITUTIONAL CONSEQUENCES THAT MAY ARISE FROM THE DEVELOPMENT OF VARIOUS MIXES OF COAL-BASED ENERGY TECHNOLOGIES TO THE YEAR 2030. THE CTA IS A NATIONAL LEVEL STUDY, WITH ATTENTION ALSO GIVEN TO CERTAIN REGIONAL AND SITE-SPECIFIC CONSEQUENCES.

THE OBJECTIVES OF THE STUDY ARE TO: 1) IDENTIFY COAL-RELATED ISSUES AND PROBLEMS; 2) EXPLORE POLICY OPTIONS THROUGH THE INVOLVEMENT OF INTERESTED PARTIES; 3) COMPARE CONSEQUENCES OF THE UTILIZATION OF REPRESENTATIVE CONVENTIONAL/ADVANCED COAL TECHNOLOGIES; 4) IDENTIFY GAPS IN COAL-RELATED RESEARCH PROGRAMS; AND 5) DEVELOP PROGRAMS TO COMMUNICATE RESULTS.

THE ULTIMATE PURPOSE OF THE STUDY IS TO PROVIDE GUIDELINES TO POLICYMAKERS, BOTH IN EPA AND ELSEWHERE.

REPORTS AND PUBLICATIONS
FIRST-YEAR REPORT FOR COAL TECHNOLOGY ASSESSMENT (CTA) PROGRAM. PREPARED FOR THE U. S. ENVIRONMENTAL PROTECTION AGENCY BY BATTELLE'S COLUMBUS LABORATORIES AND THE UNIV. OF MICHIGAN. FEBRUARY 1979.

*****

00001369
PROJECT TITLE
A STUDY OF THE EFFECTS OF NO FURTHER FEDERAL LEASING ON THE NATIONS COAL MARKETS.
PROJECT NUMBER
(EJ-78-C-01-2835. TASK 4)
INVESTIGATORS
C. HOFF STAUFFER / DAN KLEIN / MARK VAN ALLEN
RESEARCH INSTITUTION
ICF.INC./ SUITE 950,1850 K STREET, NW / WASHINGTON, D. C. 20006 / 202 862-1100
COOPERATOR
U. S. DEPT. OF INTERIOR / U. S. DEPT. OF ENERGY
PRIMARY SPONSOR
U. S. DEPT. OF ENERGY. OFFICE OF POLICY EVALUATION / R. N. SUTTER /   MORRIS ZUSMAN, TECHNICAL OFFICER
SECONDARY SPONSOR
U. S. DEPT. OF INTERIOR
PRIMARY FUNDING AMOUNT
$126,000
TIME FRAME
MAY, 1978 TO DECEMBER, 1978
LOCATION
MT / WY / CO / ND / NM / UT / ALL COAL REGIONS IN THE WEST
ABSTRACT

ICF IS PRESENTLY CONDUCTING AN ANALYSIS OF THE IMPACT OF NOT LEASING FEDERAL COAL ON THE NATION'S COAL MARKETS. ICF'S COAL AND ELECTRIC UTILITIES MODEL IS BEING USED AS THE PRIMARY ANALYTICAL TOOL. THE BASE CASE FORECASTS DEVELOPED FOR THE STUDY, THE DEMAND FOR WESTERN COAL AND ITS SENSITIVITY TO KEY UNCERTAINTIES, ARE USED IN THIS ANALYSIS. TO SIMULATE A "NO-LEASING" POLICY IN THE ICF MODEL EACH OF THE WESTERN COAL SUPPLY CATEGORIES ARE RESTRICTED TO DEVELOPABLE NON-FEDERAL COAL RESERVES (WHICH ARE AVAILABLE WITHOUT LEASING), AND ALL RESERVES ON FEDERAL LANDS ARE REMOVED FROM THE SUPPLY CURVES. A SCALING FACTOR IS USED. TO REDUCE EACH WESTERN SUPPLY CURVE IN THE MODEL BASED ON THE PERCENTAGE OF TOTAL SUB-SURFACE FEDERAL ACREAGE IN EACH STATE. MODEL FORECASTS OF REGIONAL COAL PRODUCTION, DELEVERED COAL PRICES, ELECTRICITY GENERATION COSTS, ANNUALIZED COSTS OF ELECTRICITY, ETC. WILL BE PRESENTED IN THE FINAL REPORT.

STUDY AFFILIATION
THIS PROJECT IS VERY CLOSELY RELATED TO "THE DEMAND FOR WESTERN COAL AND ITS SENSITIVITY TO KEY UNCERTAINTIES," AND IS PART OF CONTRACT NO. EJ-78-C-01-2835, TASK 4., ENERGY RESEARCH INFORMATION SYSTEM PROJECTS REPORT, VOL. 4, NO 1, PROJECT NO. 00001370 .
REPORTS AND PUBLICATIONS
THE EFFECTS OF NO FURTHER FEDERAL LEASING ON THE NATION'S COAL MARKETS. DRAFT REPORT, 1/79, ICF, INC. AVAILABLE FROM ICF, INC. AND THE U. S. DEPT. OF INTERIOR, OFFICE OF PUBLIC AFFAIRS.

*****

00001370
PROJECT TITLE
A STUDY OF THE DEMAND FOR WESTERN COAL AND ITS SENSITIVITY TO KEY UNCERTAINTIES.
PROJECT NUMBER
(EJ-78-C-01-2835. TASK 4)
INVESTIGATORS
C. HOFF STAUFFER / DON KLEIN / MARK VAN ALLEN
RESEARCH INSTITUTION
ICF, INC. / SUITE 950, 1850 K STREET, NW / WASHINGTON, D. C. 20006 / 202 862-1100

COOPERATOR
U. S. DEPT. OF INTERIOR / U. S. DEPT. OF ENERGY
PRIMARY SPONSOR
U. S. DEPT. OF ENERGY, OFFICE OF POLICY & EVALUATION /
R. N. SUTTER / MORRIS ZUSMAN
SECONDARY SPONSOR
U. S. DEPT. OF INTERIOR
PRIMARY FUNDING AMOUNT
$126,000
TIME FRAME
MAY, 1978 TO SEPTEMBER, 1978
STATUS
COMPLETED SEPTEMBER, 1978
LOCATION
MT / WY / CO / ND / NM / UT
ABSTRACT
ICF HAS FORECASTED AND EVALUATED EXPECTED PRODUCTION LEVELS FOR THE KEY WESTERN COAL SUPPLY REGIONS USING ITS COAL AND ELECTRIC UTILITIES MODEL. THIS PROJECT WAS COMPLTETED FOR THE DEPT. OF ENERGY TO ASSESS PRODUCTION REQUIREMENTS FOR EACH OF THE WESTERN STATES IN DETERMINING A FEDERAL COAL LEASING STRATEGY. ASSUMPTIONS WERE MADE IN THE MODEL FOR THE BASE CASE FORECASTS INCLUDING KEY PARAMETERS SUCH AS CRUDE OIL PRICES, GAS PRICES, COAL LABOR COSTS, ELECTRICITY GROWTH RATES, NUCLEAR CAPACITY, ETC. IN ADDITION, A SENSITIVITY ANALYSIS WAS PERFORMED TO ASSESS THE SENSITIVITY OF WESTERN COAL DEMAND TO EACH OF THESE PARAMETERS. USING THE BASE CASE FORECASTS, ONE KEY PARAMETER (ELECTRICITY GROWTH RATE, OIL PRICES, ETC.) WAS CHANGED AT A TIME TO TEST ITS EFFECT ON THE BASE CASE FORECAST VARIABLES. THE FINAL REPORT PRESENTED A RANGE OF WESTERN COAL PRODUCTION FORECASTS AND A DISCUSSION OF THE SENSITIVITY OF THE DEMAND FOR THE FORECASTED PRODUCTION.
STUDY AFFILIATION
THIS PROJECT IS CLOSELY RELATED TO "A STUDY OF THE EFFECTS OF NO FURTHER FEDERAL LEASING ON THE NATION'S COAL MARKETS," ENERGY, RESEARCH INFORMATION SYSTEM PROJECTS REPORT, VOL 4, NO. 1, PROJECT NO. 0000 1369.
REPORTS AND PUBLICATIONS
THE DEMAND FOR WESTERN COAL AND ITS SENSITIVITY TO KEY UNCERTAINTIES, DRAFT REPORT, JUNE 1978, FINAL REPORT, SEPTEMBER 1978, ICF, INC. AVAILABLE FROM ICF, INC. OR THE U. S. DEPT. OF INTERIOR, OFFICE OF PUBLIC AFFAIRS.

*****

00001371
PROJECT TITLE
EVALUATION OF THE POTENTIAL FOR UNITIZATION IN THE COAL INDUSTRY OF MONTANA
INVESTIGATORS
MONTE ELIASON
RESEARCH INSTITUTION
T. A. P., INC. / P. O. BOX 1348 / BOZEMAN, MT 59715 / 406/587-4461
PRIMARY SPONSOR
MONTANA TRADE COMMISSION
PRIMARY FUNDING AMOUNT
$1,000.
TIME FRAME
APRIL 1976 TO APRIL 1976
STATUS
COMPLETED APRIL 1976
LOCATION
MT
ABSTRACT
THE PURPOSE OF THIS STUDY WAS TO EXAMINE THE UNITIZATION CONCEPT AS IT HAS APPLIED IN RECENT YEARS TO THE GAS AND OIL INDUSTRY, WITH THE SPECIFIC OBJECTIVE OF SEEING IF THERE IS ANY APPLICABILITY TO THE RAPIDLY DEVELOPING COAL INDUSTRY IN MONTANA. RESEARCH WAS CONDUCTED TO DETERMINE IF COAL UNITIZATION HAS BEEN USED ANYWHERE ELSE IN THE NATION IN ORDER TO ASSESS THE FEASIBILITY OF APPLYING THE CONCEPT IN MONTANA IN THE MINING OF COAL.
REPORTS AND PUBLICATIONS
POTENTIAL FOR UNITIZATION IN THE COAL INDUSTRY OF MONTANA, A RESEARCH PAPER PREPARED FOR THE MONTANA TRADE COMMISSION BY T. A. P., INC., APRIL 16, 1976.

*****

00001372
PROJECT TITLE
ROCKY MOUNTAIN ENERGY RESOURCE DEVELOPMENT: STATUS, POTENTIAL, AND SOCIOECONOMIC ISSUES
INVESTIGATORS
MONTE CANFIELD, JR.,
RESEARCH INSTITUTION
U. S. GENERAL ACCOUNTING OFFICE, ENERGY & MINERALS DIV.
WASHINGTON, D. C. 20548
PRIMARY SPONSOR
U. S. GENERAL ACCOUNTING OFFICE
STATUS
COMPLETED JULY, 1977
LOCATION
ROCKY MOUNTAIN STATES / AZ / CO / ID / MT / NV / NM / ND / SD / UT / WY /
ABSTRACT
THE PURPOSES OF THIS STUDY WERE TO: (1) HIGHLIGHT THE STATUS OF AND POTENTIAL FOR ENERGY RESOURCE DEVELOPMENT IN THE ROCKY MOUNTAIN AREA; (2) IDENTIFY SOCIOECONOMIC PROBLEMS THAT MAY RESULT BY 1985 FROM ENERGY RESOURCE DEVELOPMENT IN THE AREA;

AND (3) TO DETERMINE FEDERAL, STATE, AND INDUSTRY ACTIONS BEING TAKEN TO RESOLVE THE PROBLEMS, THE LEVEL AND TYPE OF EFFORT THAT MIGHT BE REQUIRED, AND THE ROLES THE STATES, THE FEDERAL GOVERNMENT, AND INDUSTRY SHOULD PLAY IN MITIGATING THESE ADVERSE SOCIOECONOMIC IMPACTS.

REPORTS AND PUBLICATIONS

ROCKY MOUNTAIN ENERGY RESOURCE DEVELOPMENT: STATUS, POTENTIAL, AND SOCIOECONOMIC ISSUES, REPORT TO THE CONGRESS BY THE COMPTROLLER GENERAL OF THE UNITED STATES, JULY 13, 1977 (EMD 77-23)

1.2 RECLAMATION

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00001373

PROJECT TITLE

COMPUTERIZED RECLAMATION PLANNING SYSTEM FOR NORTHERN GREAT PLAINS SURFACE MINES

PROJECT NUMBER

(SUPPLEMENT #52 TO 12-11-204-12)

INVESTIGATORS

M. DOUGLAS SCOTT / ORVILLE GREEN / STEVE EASTMAN / ED BURROUGHS

RESEARCH INSTITUTION

MONTANA STATE UNIV., OFFICE OF RESEARCH & DEV. / BOZEMAN, MT 59717 / 406/994-2432 OR 2891

PRIMARY SPONSOR

U. S. FOREST SERVICE, SURFACE ENVIRONMENT & MINING

SECONDARY SPONSOR

MONTANA STATE UNIV.

PRIMARY FUNDING AMOUNT

FY78 - $37,104; FY79 - $70,894; FY80 - $107,998

SECONDARY FUNDING AMOUNT(S)

FY78 - $14,948; FY79 - $16,758; FY80 - $31,706; TOTAL $139,704

TIME FRAME

JUNE, 1977 TO FEBRUARY, 1980

LOCATION

63 COUNTIES IN MONTANA, WYOMING, SOUTH DAKOTA, NORTH DAKOTA

ABSTRACT

BECAUSE OF THE COMPLEXITY OF MINING AND RECLAMATION AT TODAY'S LARGE SURFACE COAL MINES, A COMPUTERIZED RECLAMATION PLANNING SYSTEM IS NEEDED TO MAKE THE LAND MANAGER'S JOB EASIER. SUCH A SYSTEM HAS BEEN DEVELOPED AT MONTANA STATE UNIVERSITY.

THE COMPUTER REQUIRES ENVIRONMENTAL BASELINE DATA THAT ARE KNOWN FROM MUCH PRACTICAL EXPERIENCE TO BE CRITICAL IN PREPARING A RECLAMATION PLAN. THE COMPUTER THEN MUST ANALYZE THE DATA USING A SET OF PROGRAMMED RECLAMATION ASSUMPTIONS, AND RANK FIVE POTENTIAL POST-MINING LAND USE OPTIONS BY THEIR RELATIVE FEASIBILITY AND ECONOMY. THE OPTIONS, WHICH COINCIDE WITH FEDERAL AND STATE RECLAMATION REGULATIONS ARE: NATIVE PLANT PRODUCTION, CROPLAND, WILDLIFE MANAGEMENT, OUTDOOR RECREATION, AND INTENSIVE HUMAN OCCUPANCY. THE LIST OF PROGRAMMED ASSUMPTIONS IS BASED ON STATUTORY CONSTRAINTS AND PROVEN TECHNIQUES WHICH PROVIDE RELIABLE RESULTS. THE MANAGER THEN CHOOSES WHICH LAND-USE OPTION HE DESIRES, AND THE SYSTEM WILL PRINT THE SPECIFIC TECHNIQUES, WITH COSTS, FOR ACHIEVING THAT GOAL. TECHNIQUES AND COSTS ARE BASED ON EXPERIENCE FROM OPERATING MINES IN THE NORTHERN GREAT PLAINS. BECAUSE OVERBURDEN HANDLING IS THE MOST EXPENSIVE PART OF ANY RECLAMATION PLAN, ANY LAND-USE OPTION WHICH REDUCES THE AMOUNT OF SPECIAL HANDLING REQUIRED (SUCH AS

WILDLIFE MANAGEMENT) TENDS TO BE THE MOST ECONOMICAL.

REPORTS AND PUBLICATIONS

SCOTT, M. D. 1978. "USEF THE COMPUTER FOR RECLAMATION PLANNING AT LARGE SURFACE MINES." RECLAMATION REVIEW, IN PRESS. (OBTAIN FROM CANADIAN LAND RECLAMATION ASSOCIATION.)

SCOTT, M. D. 1978. "COMPUTERIZED RECLAMATION PLANNING SYSTEM FOR NORTHERN GREAT PLAINS SURFACE COAL MINES." 2ND INTERNATIONAL CONGRESS FOR ENERGY AND THE ECOSYSTEM, UNIVERSITY OF NORTH DAKOTA. IN PRESS. (OBTAIN FROM THE UNIVERSITY OF NORTH DAKOTA.)

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00001374

PROJECT TITLE

MINE SOIL RESOURCES IN THE POWDER RIVER BASIN -- CHARACTERIZATION, EVALUATION AND POTENTIALS

PROJECT NUMBER

(EPA 706-15-16)

INVESTIGATORS

G. A. NIELSEN / D. J. DOLLHOPF

RESEARCH INSTITUTION

MONTANA STATE UNIV., DEPT. OF ANIMAL & RANGE SCIENCES / BOZEMAN, MT 59717

PRIMARY SPONSOR

U. S. EPA / C. W. HALL

PRIMARY FUNDING AMOUNT

FY77: $50,000

TIME FRAME

OCTOBER, 1977 TO OCTOBER, 1979

LOCATION

MT / POWDER RIVER BASIN

ABSTRACT

OBJECTIVES: (1) A SPECTRUM OF MINE SOILS FROM THE NORTHERN GREAT PLAINS COAL PROVINCE WITH VARYING CHEMICAL AND PHYSICAL PROPERTIES WILL BE IDENTIFIED AND CHARACTERIZED. (2) CRITERIA WILL BE DEVELOPED FOR EVALUATING THE POTENTIAL OF MINE SOILS FOR SELECTED LAND USES. APPROACH: (1) SPECIAL EMPHASIS WILL BE PLACED ON CHARACTERIZING SPECIAL PROPERTIES OF MINE SOILS SUCH AS HIGH ROCK FRAGMENT CONTENT, WEATHERABILITY OF ROCK FRAGMENTS, AND STRATIFICATIONS OF CONTRASTING TEXTURE. METHODS WILL ALSO BE DEVELOPED AND PROPOSED FOR MAPPING MINE SOILS AND FOR DESCRIBING MAPPING UNITS OF SOILS ON MINED LAND. MINE SOIL VARIABILITY WILL ALSO BE STUDIED. (2) CRITERIA FOR EVALUATING MINE SOIL POTENTIAL WILL BE SELECTED ON THE BASIS OF EXTENSIVE REVIEW OF EXISTING LITERATURE AND ADDITIONAL FIELD RESEARCH. PROGRESS: INITIAL FIELD WORK, SITE SELECTION, AND LITERATURE REVIEW WERE BEGUN IN THE FALL OF 1977.

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00001375

PROJECT TITLE

ERODIBILITY OF TOPSOIL AND SPOILS BY WATER

PROJECT NUMBER

C1A1-85

INVESTIGATORS

WILLIAM HERTSOG / E. R. BURROUGHS

RESEARCH INSTITUTION

U. S. FOREST SERVICE, INTERMTN. FOREST & RANGE EXP. STATION / BOX 1376 / BOZEMAN, MT 59715

COOPERATOR

MONTANA STATE UNIV., DEPT. OF CIVIL ENGINEERING

PRIMARY SPONSOR

U. S. EPA

SECONDARY SPONSOR

U. S. FOREST SERVICE, SURFACE ENVIRONMENT AND MINING / 145 GRAND / BILLINGS, MT 59101

TIME FRAME

JANUARY, 1976 TO APRIL, 1978

LOCATION

WESTERN UNITED STATES

ABSTRACT

THE ERODIBILITY OF SPOILS AND TOPSOIL IS AN IMPORTANT PARAMETER IN PLANNING RECLAMATION STRATEGIES, SURFACE DRAINAGE DESIGN, AND AMELIORATING ENVIRONMENTAL IMPACTS. THE STUDY OBJECTIVES ARE: 1) TO MEASURE THE THE RELATIVE ERODIBILITY OF A WIDE RANGE OF TOPSOILS AND SPOIL MATERIALS USING A RAINDROP SIMULATOR; 2) TO RELATE THE MEASURED ERODIBILITY TO PHYSICAL AND CHEMICAL CHARACTERISTICS OF THESE MATERIALS; 3) TO COMPARE ESTIMATED EROSION CAUSED BY RAINDROP IMPACT TO EROSION MEASURED ON FIELD PLOTS (ARS, ETC.); 4) TO DEVELOP GUIDELINES TO ESTIMATE THE RELATIVE ERODIBILITY OF SURFACE MINE MATERIALS.

1.3 WATER RESOURCES

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00001376
PROJECT TITLE
WATER RESOURCES OF THE POWDER RIVER STRUCTURAL BASIN IN WYOMING IN RELATION TO ENERGY DEVELOPMENT
PROJECT NUMBER
WY75-032
INVESTIGATORS
DAVID J. WANGSNESS
RESEARCH INSTITUTION
U. S. GEOGLOGICAL SURVEY, WATER RESOURCES DIV. /
P. O. BOX 1125 / CHEYENNE, WYOMING 82001 / FTS 328-2153
PRIMARY SPONSOR
U. S. GEOLOGICAL SURVEY
STATUS
COMPLETED JULY, 1977
LOCATION
WYOMING / SHERIDAN COUNTY
ABSTRACT

THE HIDDEN WATER CREEK AREA WAS MINED FROM 1944 TO 1955 AND WAS THEN ABANBONED. THE OPEN PITS FILLED WITH WATER AND POND-TYPE ECOSYSTEMS DEVELOPED.

LIGHT PENETRATES TO GREATER DEPTHS WITHIN TWO CONTROL PONDS LOCATED OUTSIDE THE MINE AREA. THE LOWER LIGHT PENETRATION IN THE PONDS WITHIN THE MINED AREA PROBABLY IS DUE, IN PART, TO THE GREATER NUMBER OF PHYTOPLANKTON CELLS. ALSO, UNCONSOLIDATED SOIL MATERIAL WITHIN THE MINE AREA WAS OBSERVED TO SLOUGH OFF THE POND BANKS, WHICH COULD ADD TO THE CONCENTRATION OF SUSPENDED SEDIMENTS.

DISSOLVED OXYGEN CONCENTRATIONS WERE LOWER IN THE PONDS WITHIN THE MINED AREA. MOST OF THE MAJOR IONS (CALCIUM, MAGNESIUM, SULFATE, AND SODIUM) WERE PRESENT IN GREATER CONCENTRATIONS IN THE PONDS WITHIN THE MINED AREA. HIGHER CONCENTRATIONS OF BICARBONATE AND TOTAL HARDNESS WERE MEASURED IN THE WATER WITHIN THE MINED AREA. BIOLOGICAL COMMUNITIES WERE LESS DIVERSE AND CHEMICAL CONCENTRATIONS FLUCTUATED MORE IN THE MINED AREA THAN IN THE PONDS OUTSIDE THE MINED AREA.

STUDY AFFILIATION
THIS STUDY IS PART OF AN UMBRELLA PROJECT, "WATER RESOURCES OF THE POWDER RIVER STRUCTURAL BASIN IN WYOMING IN RELATION TO ENERGY DEVELOPMENT", ERIS, VOL. 1, NO. 1, NUMBER 00000108.
REPORTS AND PUBLICATIONS
PHYSICAL, CHEMICAL, AND BIOLOGICAL RELATIONS OF FOUR PONDS IN THE HIDDEN WATER CREEK STRIP-MINE AREA, POWDER RIVER BASIN, WYOMING, BY DAVID J. WANGNESS, WRI 77-72, U. S. GEOLOGICAL SURVEY. THIS REPORT IS AVAILABLE FROM U.S.G.S. / P. O. BOX 1125 / CHEYENNE, WYOMING 82001 AND ALSO FROM NTIS, SPRINGFIELD, VA.

00001377
PROJECT TITLE
MECHANISTIC ASPECTS OF BACTERIAL DISSIMILATORY SULFATE REDUCTION IN SOUTHEASTERN MONTANA GROUNDWATERS
PROJECT NUMBER
(G&C 785)
INVESTIGATORS
G. A. MCFETERS / W. S. DOCKINS / G. J. OLSON
RESEARCH INSTITUTION
MONTANA STATE UNIV., DEPT. OF MICROBIOLOGY / BOZEMAN, MT 59717 / 406 994-2902
PRIMARY SPONSOR
U. S. GEOLOGICAL SURVEY
PRIMARY FUNDING AMOUNT
$14,569
TIME FRAME
JANUARY, 1979 TO JULY, 1979
LOCATION
MT / COLSTRIP AREA
ABSTRACT

THE PRIMARY OBJECTIVE OF THIS INVESTIGATION WILL BE TO STUDY MECHANISTIC AND KINETIC ASPECTS OF MICROBIAL SULFATE REDUCTION IN SOUTHEASTERN MONTANA GROUNDWATERS. THE POSSIBLE SOURCES OF ORGANIC MATERIAL FOR SULFATE REDUCING BACTERIA WILL BE EXAMINED AS WILL THE CONTENTION THAT THESE ORGANISMS ARE ACTIVE IN AN ATTACHED STATE, PRIMARILY IN SUBSURFACE MICROZONES.

A SECONDARY OBJECTIVE, WHICH WILL LARGELY DEPEND ON THE OUTCOME OF THE INITIAL ASPECTS OF THIS STUDY, INVOLVES APPLICATION OF THIS WORK TO COAL MINING RELATED WATER POLLUTION PROBLEMS. THE RATES AT WHICH SULFATE REDUCING BACTERIA CAN REMOVE SULFATES FROM GROUNDWATERS WOULD BE DETERMINED AND THEN BY MANIPULATION OF ENVIRONMENTAL PARAMETERS, ATTEMPTS WILL BE MADE TO MAXIMIZE THESE RATES. THIS PORTION OF THE STUDY MAY SUGGEST EFFECTIVE WAYS TO RE-ESTABLISH SULFATE REDUCING POPULATIONS IN BACKFILLED COAL OVERBURDEN AND METHODS TO INCREASE SULFATE REDUCTION RATES, HENCE HEAVY METAL PRECIPITATION IN SETTLING PONDS.

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00001378
PROJECT TITLE
A STUDY OF THE ENERGY REQUIREMENTS OF IRRIGATED CROPS IN THE 17 WESTERN STATES
INVESTIGATORS
EARL O. HEADY / DAN DVOSKIN
RESEARCH INSTITUTION
IOWA STATE UNIV. / CENTER FOR AGRICULTURAL & RURAL DEV. / AMES, IA 50010 / (515)294-1183
PRIMARY SPONSOR
NATIONAL SCIENCE FOUNDATION
TIME FRAME
JANUARY, 1972 TO 1978
STATUS
COMPLETED 1978
LOCATION
MT / WY / OR / ND / WA / UT / SD / NV / ID / CO /
CA / AZ / NM / NE / TX / OK / KS

ABSTRACT

THE MAIN OBJECTIVE OF THIS STUDY WAS TO OUTLINE AN ANALYTICAL PROCEDURE THAT WOULD DETERMINE THE ENERGY USE ON IRRIGATED CROPLAND. THE PROCEDURE USED WAS APPLIED CONSISTENTLY OVER THE 17 WESTERN STATES. FROM THIS DATA BASE, CHANGES IN THE ASSUMPTIONS REGARDING WATER SOURCES, IRRIGATION METHODS, ENERGY CONVERSION EFFICIENCY, AND FUEL SUBSTITUTIONS WERE ANALYZED. THIS STUDY WAS BASED ON THE 105 PRODUCING AREAS WHICH ARE THE BASIC REGIONAL UNIT FOR THE PROGRAMMING MODEL USED IN THE NATIONAL STUDY ON ENERGY AND U. S. AGRICULTURE AT THE CENTER FOR AGRICULTURAL AND RURAL DEVELOPMENT. CONVERTING STATE DATA TO PRODUCING AREA DATA WAS ACCOMPLISHED BY WEIGHTS REFLECTING THE PROPORTION OF THE 1969 IRRIGATED CROPLAND ACRES FOR THE 17 WESTERN STATES IN EACH OF THE IRRIGATED PRODUCING AREAS. THE STUDY YIELDED SOME ESTIMATES OF ENERGY USE IN IRRIGATION AND PROVIDED A MEANS TO EVALUATE POLICIES AFFECTING IRRIGATION FROM GROUND WATER, PUMPING DEPTH, AND IRRIGATION METHODS.

REPORTS AND PUBLICATIONS

ENERGY REQUIREMENTS OF IRRIGATED CROPS IN THE WESTERN UNITED STATES, MISCELLANEOUS REPORT, BY DAN DVOSKIN AND EARL O. HEADY, CENTER FOR AGRICULTURAL AND RURAL DEVELOPMENT, IOWA STATE UNIVERSITY, AMES, IA, NOVEMBER 1976. AVAILABLE FOR $1.00 FROM ABOVE ADDRESS.

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00001379

PROJECT TITLE

WATER DEVELOPMENT IN THE TONGUE AND POWDER RIVER BASINS

INVESTIGATORS

CHRIS TOOTELL

RESEARCH INSTITUTION

MONTANA DEPT. OF NATURAL RESOURCES & CONSERVATION /

32 SOUTH EWING / HELENA, MONTANA 59601 / (406)449-2872

PRIMARY SPONSOR

MONTANA DEPT. OF NATURAL RESOURCES AND CONSERVATION

TIME FRAME

APRIL, 1977 TO JANUARY, 1979

STATUS

COMPLETED JANUARY, 1979

LOCATION

MT / TONGUE AND POWDER RIVER BASINS / TONGUE RIVER DAM

ABSTRACT

IN 1977, THE 45TH MONTANA LEGISLATURE PASSED HOUSE JOINT RESOLUTION 22 DIRECTING THE DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION TO: 1) DISCUSS WITH REPRESENTATIVES OF THE STATE OF WYOMING, THE CROW TRIBE, AND THE NORTHERN CHEYENNE TRIBE THE POSSIBILITY OF JOINTLY STUDYING WATER SUPPLY PROJECTS IN THE TONGUE AND POWDER RIVER BASINS; 2) INVESTIGATE WATER QUALITY AND SALINITY IN THE TWO BASINS; AND 3) INVESTIGATE WATER MARKETING POTENTIAL IN THE TWO BASINS. THE STUDY INCLUDED AN EXAMINATION OF WATER REQUIREMENTS FOR LIKELY INDUSTRIAL USE (LIQUEFICATION, HIGH BTU GASIFICATION, GENERATION, COAL SLURRY, AND COAL MINING) IN THE TWO RIVER BASINS. OUT OF FORTY THREE INDUSTRIAL COMPANIES CONTACTED, EIGHT COMPANIES INDICATED INTEREST IN THE POSSIBILITY OF PURCHASING TONGUE RIVER WATER FOR FUTURE COAL-RELATED INDUSTRIAL DEVELOPMENT.

REPORTS AND PUBLICATIONS

WATER DEVELOPMENT IN THE TONGUE AND POWDER RIVER BASINS, JANUARY 1979, WATER RESOURCES DIVISION, MONTANA DEPARTMENT OF NATURAL RESOURCES AND CONSERVATION, 32 SO. EWING, HELENA, MONTANA 59601.

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00001380

PROJECT TITLE

WATER AVAILABILITY ASSESSMENT FOR COAL TECHNOLOGY REQUIREMENTS IN THE UPPER MISSOURI RIVER BASIN

INVESTIGATORS

DON OHNSTAD / DICK CLARK / CHRIS GARVEY / HUGH HUDSON / GENE KRENZ / CLEM LORD / DERWOOD MERCER / GARY PARKER / RALPH SCHMIDT / JIM TAYLOR / ARNOLD VINNARD / RON WOODBURN.

RESEARCH INSTITUTION

MISSOURI RIVER BASIN COMMISSION / SUITE 403, 10050 REGENCY CIRCLE / OMAHA, NE 68114 / 402/397-5714

COOPERATOR

U. S. BUREAU OF RECLAMATION

PRIMARY FUNDING AMOUNT

$265,000

TIME FRAME

SEPTEMBER, 1977 TO FEBRUARY, 1979

STATUS

COMPLETED FEBRUARY, 1979

LOCATION

ASSESSMENT AREAS: MONTANA, UPPER YELLOWSTONE, CLARKS FORK-BIGHORN, TONGUE-POWDER, LOWER YELLOWSTONE / NORTH DAKOTA, NORTH DAKOTA TRIBUTARIES / WYOMING, WIND-BIGHORN-CLARKS FORK / SOUTH DAKOTA, SOUTH DAKOTA TRIBUTARIES

ABSTRACT

THE OBJECTIVE OF THIS ASSESSMENT WAS TO ASSESS WATER SUPPLY AVAILABILITY FOR THE DEVELOPMENT OF EMERGING COAL TECHNOLOGIES IN THE UPPER MISSOURI RIVER BASIN AGAINST A BACKGROUND OF CONVENTIONAL WATER NEEDS. IMPLICIT WITHIN THIS OBJECTIVE WAS ASSESSMENT OF THE IMPLICATIONS OF COAL DEVELOPMENT WITH RESPECT TO THE ASSESSMENT AREA'S WATER AND RELATED LAND RESOURCES AND THE EVALUATION OF WATER-RELATED CONSTRAINTS TO COAL DEVELOPMENT INCLUDING POSSIBLE MEANS OF REMOVING SUCH CONSTRAINTS. THIS ASSESSMENT WAS CONDUCTED FOR TWO TIME FRAMES-SHORT-RANGE (PRESENT TO 1985) AND LONG-RANGE (1985 TO 2000).

THE FOLLOWING SUBJECTS WERE CONSIDERED IN THE ASSESSMENT: (1) EVALUATION OF PROJECTED WATER SUPPLY AVAILABILITY AND WATER QUALITY EXCLUSIVE OF EMERGING ENERGY TECHNOLOGY DEVELOPMENT; (2) EVALUATION OF ENERGY TECHNOLOGY DATA AND RELATED INFORMATION PROVIDED BY THE DEPT. OF ENERGY; (3) SELECTION OF CANDIDATE AREAS FOR ENERGY TECHNOLOGY DEVELOPMENT; (4) IDENTIFICATION AND ASSESSMENT OF POTENTIAL FOR AND IMPACTS OF USING ANY UNCOMMITTED WATER IN CERTAIN CANDIDATE AREAS; (5) IDENTIFICATION AND ASSESSMENT OF ANY INDICATED POTENTIAL CHANGES IN CURRENTLY UTILIZED WATER; (6) IDENTIFICATION AND ASSESSMENT OF ALTERNATIVES TO (4) AND (5) THROUGH WATER MANAGEMENT, TECHNOLOGY, AND SITING OPTIONS; AND (7) COST ESTIMATES FOR WATER SUPPLY AND WASTE WATER DISPOSAL.

REPORTS AND PUBLICATIONS

FINAL REPORT, SECTION 13(A) WATER ASSESSMENT, UPPER MISSOURI RIVER BASIN, DECEMBER 1978, MISSOURI RIVER BASIN COMMISSION. (TRANSMITEED TO WATER RESOURCES COUNCIL 2/79). WATER ASSESSMENT OF COAL TECHNOLOGIES IN THE UPPER MISSOURI RIVER BASIN-WATER QUALITY ANALYSIS, PREPARED BY HARZA ENGINEERING COMPANY, CHICAGO,IL FOR THE MISSOURI RIVER BASIN COMMISSION, NOVEMBER,1978.

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00001381

PROJECT TITLE

WEST RIVER AGUEDUCT STUDY

RESEARCH INSTITUTION

CH2M HILL / 12000 E. 47TH AVENUE / BOX 39048 / DENVER,
COLORADA 80239 / 303 371-6470

COOPERATOR

FRANCIS - MEADOR - GELLHAUS, INC. - RAPID CITY, S. D. / TEAM FOUR, INC. - ST. LOUIS, MISSOURI / KAISER AND COMPANY - CHEYENNE, WY.

PRIMARY SPONSOR

OLD WEST REGIONAL COMMISSION / BILL FOGARTY / HEDDEN-EMPIRE BUILDING / BILLINGS, MONTANA 59101

SECONDARY SPONSOR

SOUTH DAKOTA DEPT. OF NATURAL RESOURCE DEV. / WYOMING STATE ENGINEER'S OFFICE / S.D. WEST RIVER CONSERVANCY SUB-DISTRICT / SOUTH DAKOTA BLACK HILLS CONSERVANCY SUB-DISTRICT

PRIMARY FUNDING AMOUNT

$280,000

SECONDARY FUNDING AMOUNT(S)

$40,000

TIME FRAME

JANUARY, 1978 TO DECEMBER, 1978

STATUS

COMPLETED DECEMBER, 1978

LOCATION

WESTERN S. D. AND NORTHEASTERN WY

ABSTRACT

THE FUNDAMENTAL PURPOSE OF THE STUDY WAS TO INVESTIGATE THE POSSIBILITY OF PROVIDING MUNICIPALITIES AND RURAL AREAS IN WESTERN SOUTH DAKOTA AND MUNICIPALITIES, RURAL AREAS, AND ENERGY DEVELOPMENT INDUSTRIES IN NORTHEASTERN WITH A RELIABLE WATER SUPPLY BY CONSTRUCTING AN AQUEDUCT FROM OAHE RESERVOIR TO NORTHEASTERN WYOMING. THE OBJECTIVES OF THE STUDY WERE TO DETERMINE THE: A) FEASIBILITY OF THE PROJECT B) WATER NEEDS OF THE AREA C) FINANCING PLAN AND D) LEGAL AND INSTITUTIONAL ARRANGEMENTS. THE STUDY WAS CONDUCTED UNDER THE DIRECTION OF A SOUTH DAKOTA-WYOMING STUDY MANAGEMENT TEAM. THIS TEAM SELECTED THE CONSULTANTS FOR COMPLETION OF THE STUDY AND ADVISED THE CONSULTANTS WITH REGARD TO THE PLAN OF STUDY AND REPORT PREPARATION.

REPORTS AND PUBLICATIONS

1. WEST RIVER AQUEDUCT-SUMMARY REPORT. 2. WEST RIVER AQUEDUCT-TECHNICAL REPORT. BOTH REPORTS WERE AUTHORIZED BY THE CONSULTANTS FOR THE MANAGEMENT TEAM. ALL AVAILABLE REPORTS FOR S. D. HAVE BEEN DISTRIBUTED. THE SOUTH DAKOTA STATE LIBRARY HAS A COPY AS DO THE LIBRARIES OF THE SEVEN STATE SUPPORTED COLLEGES & UNIVERSITIES. COPIES FOR WYOMING WERE TRANSMITTED TO THE STATE ENGINEER'S OFFICE IN CHEYENNE, WY

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00001382

PROJECT TITLE

ENVIRONMENTAL EFFECTS OF POLLUTANTS FROM ENERGY PRODUCTION

PROJECT NUMBER

05-E693-EG: V625-31

INVESTIGATORS

PUESCHEL, R. F. / ALLEE, P. A. / COBB, W. E. /
PARUNGO, F. P. / VANVALIN, C. C. / WELLMAN, D. L.

RESEARCH INSTITUTION

U. S. DEPT. OF COMMERCE / ATMOSPHERIC CHEM. PROG. /
BOULDER, CO 80302

PRIMARY SPONSOR

U.S. EPA, OFFICE OF ENERGY MINERALS AND INDUSTRY / 401
M ST., S.W. / WASHINGTON, D. C. 20460

TIME FRAME

JULY, 1975 TO SEPTEMBER, 1977

ABSTRACT

OBJECTIVES: DEVELOP CRITERIA BY WHICH TO ASSESS THE IMPACT OF POLLUTANTS FROM POWER GENERATION ON THE SOLAR AND TERRESTRIAL RADIATIVE FLUXES, AND TO DETERMINE THEIR CAPABILITY FOR ALTERING AMOUNT AND DISTRIBUTION OF PRECIPITATION THROUGH CHANGES IN THE NUMBERS OF CLOUD AND ICE NUCLEI. APPROACH: MEASURE IN-SITU BY AIRCRAFT 1) NUMBER AND SIZE DISTRIBUTIONS OF PRIMARY (FLYASH) AND SECONDARY (GAS-TO-PARTICLE CONVERTED) AEROSOLS, 2) GASES THAT LEAD TO PARTICLE FORMATION, 3) INFRARED TERRESTRIAL RADIATION 4) ELECTRIC FIELDS AND CONDUCTIVITIES OF THE ATMOSPHERE, 5) AEROSOL LIGHT SCATTERING COEFFICIENTS. COLLECT ADDITIONAL AEROSOL AND RADIATIVE EFFECTS, VIZ. PARTICULATE SIZES SHAPES, AND ELEMENTAL COMPOSITIONS. INDEPENDENTLY DETERMINE THE CLOUD AND ICE NUCLEATING PORTION OF THE AEROSOL. CONDUCT SIMILAR MEASUREMENTS AND SAMPLE COLLECTIONS AT SELECTED SAMPLE LOCATIONS. MEASURE VISABILITIES PHOTOMETRICALLY AND BY LIGHT SCATTERING COEFFICIENT. USE MEASURED AEROSOL SIZE DISTRIBUTIONS AS INPUT INTO RADIATIVE TRANSFER MODELS. PROGRESS: IN COAL FIRED POWERPLANT PLUMES, SECONDARY AEROSOLS FROM THE CONVERSION OF SO2 TO SO4 AT A RATE OF A FEW PER CENT PER HOUR AFFECT THE CONDENSATION MODE AT LESS THAN 0.05 MICROGRAMS PARTICLE RADIUS OF THE ATMOSPHERIC AEROSOL SIZE DISTRIBUTION. PRIMARY AEROSOLS (FLYASH ASSOCIATED WITH A NEGLIBLY SMALL AMOUNT OF PARTICULATE SULFUR ON ITS SURFACE) AFFECT THE OPTICALLY IMPORTANT ACQUISITION MODES AT SEVERAL MICRONS RADIUS. THE ACCUMULATION MODE AT AROUND 0.1 MICROGRAMS APPEARS PHYSICALLY INVARIANT IN SPACE AND TIME, BUT IS SUBJECT TO CHEMICAL VARIATIONS DUE TO INTERACTIONS WITH PLUME GASES AND AEROSOLS. CONTRARY TO SULFATES, SUBMICRON NITRATE PARTICULATES HAVE NOT BEEN FOUND IN ABUNDANCE IN EITHER PLUMES OR BACKGROUND AIR.

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00001383

PROJECT TITLE

ENERGY-RELATED AMBIENT AIR QUALITY MONITORING IN THE WESTERN ENERGY DEVELOPMENT AREA

PROJECT NUMBER

J625C-75

INVESTIGATORS

SNELLING R. N.

RESEARCH INSTITUTION

U. S. EPA, OFFICE OF RESEARCH & DEV. / P. O. BOX 15027 /
LAS VEGAS, NEVADA, 89114.

PRIMARY SPONSOR

U. S. EPA, OFFICE OF RESEARCH & DEV. / P. O. BOX 15027 /
LAS VEGAS, NEVADA, 89114.

TIME FRAME

JULY, 1975 TO NOVEMBER, 1980

LOCATION

WESTERN U. S.

ABSTRACT

PROVIDE INTERGRATED AND VALIDATED AIR QUALITY MONITORING DATA (BASELINE AND TREND) FOR THE WESTERN AREA OF THE U. S. WHICH ARE OR WILL BE IMPACTED BY ENERGY-RELATED DEVELOPMENT ACTIVITIES. THE GEOGRAPHIC COVERAGE INCLUDES THE NORTHERN GREAT PLAINS, FOUR CORNERS AREA, COLORADO PLATEAU (OIL SHALE), BLACK MESA, ARIZONA AND AREAS OF NEW MEXICO. 1. MAINTAIN INVENTORY OF EXISTING AND PROJECTED POLLUTION SOURCES AND MONITORING NETWORKS. 2. INTEGRATE AIR QUALITY MONITORING DATA ASSESS IMPACT OF ENERGY-RELATED ACTIVITIES. 3. CONDUCT AIRCRAFT AIR QUALITY MONITORING MISSIONS TO SUPPLEMENT GROUND-BASED NETWORK DATA.

REPORTS AND PUBLICATIONS

1. ANNUAL REPORTS OF GROUND-BASED MONITORING DATA.
2. ANNUAL REPORTS OF AIRBORNE MONITORING DATA.

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00001384
PROJECT TITLE
DEVELOPMENT OF A REGIONAL AIR POLLUTION MODEL AND ITS APPLICATION TO THE NORTHERN GREAT PLAINS
INVESTIGATORS
MEI-KAO LIU
RESEARCH INSTITUTION
SYSTEMS APPLICATIONS, INC. / 950 NORTHGATE DR. /
SAN RAFAEL, CALIFORNIA 94903 / (415)472-4011
COOPERATOR
DONALD HENDERSON / U. S. EPA
PRIMARY SPONSOR
U. S. EPA, REGION VIII
SECONDARY SPONSOR
U. S. EPA
PRIMARY FUNDING AMOUNT
$84,000
TIME FRAME
JANUARY, 1976 TO APRIL, 1979
LOCATION
MONTANA, WYOMING, NORTH AND SOUTH DAKOTA, NEBRASKA AND NORTHERN COLORADO
ABSTRACT

POTENTIAL ENVIRONMENTAL PROBLEMS FROM COAL DEVELOPMENT IN THE NORTHERN GREAT PLAINS WERE EXAMINED IN THIS STUDY. A REGIONAL SCALE AIR POLLUTION MODEL WAS USED TO ASSESS THE IMPACT OF POLLLTANT EMISSIONS ON AIR QUALITY AT LARGE DISTANCES. THIS MODEL IS BASED ON THE NUMERICAL SOLUTION OF THE ATMOSPHERIC DIFFUSION EQUATION. SULFUR DIOXIBE EMISSIONS INVENTORIES CONSTRUCTED FOR 1976 AND 1986 WERE USED WITH THIS MODEL TO CALCULATE LONG RANGE TRANSPORT, DIFFUSION, AND DRY DEPOSITION OF SO2 AND SULFATES FOR THREE METEOROLOGICAL CONDITIONS: A STRONG-WIND WINTER CASE, A STAGNATION SPRING CASE, AND A MODERATE-WIND SUMMER CASE. CALCULATED SO2 CONCENTRATIONS NEAR POINT SOURCES ARE HIGHEST FOR THE STAGNATION SPRING CASE, INTERMEDIATE FOR THE STRONG-WIND WINTER CASE, AND LOWEST FOR THE MODERATE-WIND SUMMER CASE. LONG RANGE TRANSPORT OF SO2, IN CONTRAST, APPEARS TO BE SLIGHTLY GREATER IN THE WINTER AND SUMMER CASES THAN IN THE SPRING. FOR AN SO2/SULFATE CONVERSION RATE OF 0.3% H-1, THE PREDICTED SULFATE CONCENTRATIONS ARE NOT SIGNIFICANTLY ABOVE THE BACKGROUND LEVEL. A SIMULATION USING A RATE FO 3% H-1, HOWEVER, YIELDS A MAXIMUM 3-H AVERAGE SULFATE CONCENTRATION OF 20 G M-3.

REPORTS AND PUBLICATIONS

"THE DEVELOPMENT OF A REGIONAL AIR POLLUTION MODEL AND ITS APPLICATION TO THE NORTHERN GREAT PLAINS," M. K. LIU AND D. R. DURRAN, EPA-908/1-77-001, JULY 1977, SYSTEMS APPLICATIONS, INCORPORATED, 950 NORTHGATE DRIVE, SAN RAFAEL, CALIFORNIA 94903.
"A STUDY OF LONG RANGE AIR POLLUTION PROBLEMS RELATED TO COAL DEVELOPMENT IN THE NORTHERN GREAT PLAINS," D. R. DURRAN, J. J. MELDGIN, M. K. LIU, T. THOEM, AND D. HENDERSON, ATMOSPHERIC ENVIRONMENT, 1977, PERGAMON PRESS.
"APPLICATION OF A MESOSCALE AIR QUALITY MODEL TO LONG-RANGE AIR POLLUTION PROBLEMS," C. S. BURTON, M. K. LIU, ATMOSPHERIC PODLUTION, 1978, ELSEVIER PUBLISHING COMPANY.

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00001385

PROJECT TITLE

INVESTIGATION OF THE IMPACT OF COAL DEVELOPMENT ON THE CULTURAL RESOURCES IN SOUTHEASTERN MONTANA

PROJECT NUMBER

(CON. #14-08-0001-15951)

INVESTIGATORS

LARRY A. LAHREN

RESEARCH INSTITUTION

ANTHRO RESEARCH, INC. / LIVINGSTON, MT 59047 / 406/222-3168

PRIMARY SPONSOR

U. S. GEOLOGICAL SURVEY / PROJECT OFFICER: ROBERT L. SUTTON/ $36,000

TIME FRAME

JULY, 1976 TO MAY, 1977

STATUS

COMPLETED MAY, 1977

LOCATION

SOUTHEASTERN MT / MT -- POWDER RIVER CO. / LOWER PORTIONS OF ROSEBUD & CUSTER CO. / CROW & NO. CHEYENNE INDIAN RESERVATION ON WEST / MT-WY BORDER ON SOUTH / LITTLE POWDER & POWDER RIVERSON THE EAST / FIRST STANDARD PARALLEL ON NORTH.

ABSTRACT

THE PRIMARY PURPOSE OF THIS STUDY WAS TO ASSEMBLE AND ANALYZE DATA CONCERNING THE KNOWN AND UNKNOWN CULTURAL RESOURCES IN SOUTHEASTERN MONTANA AND FURTHERMORE TO DEFINE WHAT THE IMPACTS OF ACTIVE AND PROPOSED COAL MINING AND DEVELOPMENT WOULD BE ON THESE CULTURAL RESOURCES. RESULTS OF THE STUDY WERE TO BE USED FOR ASSESSING IMPACTS IN A REGIONAL AND SITE-SPECIFIC ENVIRONMENTAL IMPACT STATEMENT PREPARED BY A TASK FORCE UNDER THE OVERALL LEADERSHIP OF THE U. S. GEOLOGICAL SURVEY.

STUDY AFFILIATION

THIS STUDY WAS PREPARED FOR THE NORTHERN POWDER RIVER BASIN REGIONAL ENVIRONMENTAL IMPACT STATEMENT. ERIS 544.

REPORTS AND PUBLICATIONS

"THE IMPACT OF COAL DEVELOPMENT ON THE CULTURAL RESOURCES IN SOUTHEASTERN MONTANA," FINAL SUMMARY REPORT, LARRY A. LAHREN, ANTHRO RESEARCH, INC., LIVINGSTON, MT 59047 (FOR THE U. S. GEOLOGICAL SURVEY, CONTRACT NO. 14-08-0001-15951) (1977)

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00001386

PROJECT TITLE

ANALYSIS OF THE IMPACT OF ENERGY DEVELOPMENT ON THE PUBLIC AND PRIVATE SECTORS OF WYOMING'S ECONOMY

PROJECT NUMBER

0068701; WYO-130-076

INVESTIGATORS

OLSON, C. F.

RESEARCH INSTITUTION

UNIV. OF WYOMING, / AG. EXP. STATION / P. O. BOX 3944, UNIVERSITY STATION / LARAMIE, WY 82071

PRIMARY SPONSOR

WYOMING STATE GOVERNMENT / CHEYENNE, WY

TIME FRAME

OCTOBER, 1977 TO NOVEMBER, 1978

LOCATION

WY

ABSTRACT

OBJECTIVE: ANALYZE THE EFFECTS OF COAL-BASED GROWTH IN WYOMING'S POWDER BASIN ON REGIONAL ECONOMIC COSTS AND BENEFITS, DISTRIBUTION OF COSTS AND BENEFITS BETWEEN PUBLIC AND PRIVATE SECTORS. PREDEVELOPMENT RESIDENTS. DETERMINE INSTITUTIONAL PROBLEMS ASSOCIATED WITH GROWTH OF ENERGY AND STRATEGIES THAT WILL HELP SOLVE SUCH PROBLEMS.

APPROACH: AN ANALYTICAL TECHNIQUE APPROPRIATE FOR ASSESSING THE CHANGES IN ECONOMIC WELL-BEING CAUSED BY CHANGES IN ECONOMIC ACTIVITY WILL BE UTILIZED. OBJECTIVE 1 WILL BE ACCOMPLISHED BY EXAMINING THE AREA AND PEOPLE AFFECTED AT THREE TIME PERIODS--PREDEVELOPMENT; START-UP PHASE OF DEVELOPMENT, AND AFTER DEVELOPMENT IS ESTABLISHED. OBJECTIVE 2 WILL BE ACCOMPLISHED BY EXAMINING HOW VARIOUS TAX AND INSTITUTIONAL STRATEGIES AFFECT RESIDENTS DURING THE SECOND AND THIRD PHASES.

PROGRESS: ONE STUDY IS UNDERWAY AND ANOTHER IS BEING STARTED. THE FIRST STUDY IS TO SEE HOW ENERGY DEVELOPMENT IN NORTHEASTERN WYOMING IS AFFECTING THE AGRICULTURAL LABOR MARKET AND THE ORGANIZATION AND OPERATION OF RANCHES. THE SECOND STUDY WILL BE LOOKING AT HOW ENERGY DEVELOPMENT MIGHT AFFECT SECONDARY AND TERTIARY ECONOMIC ACTIVITY IN A RURAL AGRICULTURALLY ORIENTED COMMUNITY.

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00001387

PROJECT TITLE

RURAL LABORATORY--MERCER COUNTY, NORTH DAKOTA

PROJECT NUMBER

81A04H

INVESTIGATORS

MERCER CO., N. D. ENERGY DEVELOPMENT BOARD

RESEARCH INSTITUTION

MERCER CO. GOVERNMENT / STANTON, NORTH DAKOTA 58571

PRIMARY SPONSOR
U. S. DEPT. OF ENERGY, DIV. OF BUILDINGS & COMMUNITY SYSTEMS / 20 MASSACHUSETTS AVE. N. W. / WASHINGTON, D. C. 20545
TIME FRAME
OCTOBER, 1977 TO JULY, 1980
LOCATION
ND
ABSTRACT
THE PRIMARY OBJECTIVE IS THE ESTABLISHMENT OF A RURAL ENERGY LABORATORY IN MERCER COUNTY. THE LABORATORY WILL PERMIT DOE TO CONDUCT RD AND D EXPERIMENTS IN COMMUNITY ENERGY DESIGN AND IN ARCHITECTURAL AND ENGINEERING SYSTEMS THROUGH A UNIQUE INSTITUTIONAL MECHANISM, THE ENERGY DEVELOPMENT BOARD. MERCER COUNTY RESIDENTS WILL BENEFIT THROUGH THE MANAGEMENT OF RAPID ENERGY-RELATED GROWTH AND REDUCTIONS IN FUTURE ENERGY COSTS RESULTING FROM THE ENERGY-CONSERVING DEVELOPMENT PLAN AND THE DEMONSTRATION PROJECTS. TASKS WILL INCLUDE DEVELOPMENT OF: (1) ANNUAL WORK PROGRAMS OUTLINING ACTIVITIES TO BE UNDER TAKEN; (2) GROWTH MANAGEMENT PLAN FOR MERCER COUNTY; AND (3) PRELIMINARY PLANS FOR ENERGY CONSERVATION DEMONSTRATION PROJECTS.
STUDY AFFILIATION
THIS PROJECT IS AN UMBRELLA PROJECT FOR NINE PROJECTS IN ENERGY RESEARCH INFORMATION SYSTEM, VOL. 4, NO. 1, *Nos. 00001388,00001389,00001390,00001391,00001392,00001393,00001394,00001395.00001396.*

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00001388
PROJECT TITLE
DEVELOPMENT MANAGEMENT SYSTEM
PROJECT NUMBER
01
INVESTIGATORS
WILL WALTON
RESEARCH INSTITUTION
MERCER COUNTY ENERGY DEVELOPMENT BOARD / P. O. BOX 670 / HAZEN, N. D. 58545 / (701)748-6361
COOPERATOR
NATIONAL BIOCENTRIC, INC. / 2233 HAMLINE AVENUE NO. / ST. PAUL, MINNESOTA 55113
PRIMARY SPONSOR
U. S. DEPT. OF ENERGY / JACOB KAMINSKY, PROGRAM MANAGER / 20 MASSACHUSETTS AVE. N. D. / WASHINGTON, D. C. 20545 / (202)376-4818
PRIMARY FUNDING AMOUNT
FY78 - $250,000; FY79 - $200,000; FY80 - $200,000; TOTAL $650,000
TIME FRAME
JANUARY, 1978 TO JUNE, 1980
STATUS
COMPLETED MAY, 1978
LOCATION
MERCER COUNTY, NORTH DAKOTA
ABSTRACT
CONCEPTUAL MODEL OF A DEVELOPMENT MANAGEMENT SYSTEM IS AN INTERVIEW ON THE STATE OF THE ART IN GROWTH MANAGEMENT PLANNING. MR. ROBERT C. EINSWEILER, A WELL KNOWN PLANNING PROFESSIONAL IN THE TWIN CITIES OF MINNESOTA, WAS INTERVIEWED BY NATIONAL BIOCENTRIC, INC., FOR THE MERCER COUNTY ENERGY DEVELOPMENT BOARD, IN ORDER TO SURVEY CURRENT THEORIES AND EXPERIENCE IN GROWTH MANAGEMENT PLANNING.
STUDY AFFILIATION
THIS PROJECT IS PART OF 'RURAL ENERGY CONSERVATION DEMONSTRATION LABORATORY,' ERIS, VOL. 4; NO. 1, *Nos. 00001387,00001388,00001390,00001391,00001392,00001393,00001394,00001395,00001396.*
REPORTS AND PUBLICATIONS
"CONCEPTUAL MODEL OF A DEVELOPMENT MANAGEMENT SYSTEM;" NATIONAL BIOCENTRIC, INC.; REPORT NO. 1 IN A SERIES OF 9; MAY 1978; PUBLISHED BY MERCER COUNTY ENERGY DEVELOPMENT BOARD. THIS REPORT IS AVAILABLE FROM MERCER COUNTY EDB / P. O. BOX 670 / HAZEN, ND 58545

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00001389
PROJECT TITLE
DATA SOURCES CATALOG
PROJECT NUMBER
02
INVESTIGATORS
WILL WALTON
RESEARCH INSTITUTION
MERCER COUNTY ENERGY DEVELOPMENT BOARD / P. O. BOX 670 / HAZEN, ND 58545 / (701)748-6361
COOPERATOR
NATIONAL BIOCENTRIC, INC. / AND GENEREUX CONSULTING - BOTH OF ST. PAUL, MINNESOTA
PRIMARY SPONSOR
U. S. DEPT. OF ENERGY / JACOB KAMINSKY, PROJECT MANAGER / 20 MASSACHUSETTS AVENUE NW / WASHINGTON, D. C. 20545 / (202)376-4818
PRIMARY FUNDING AMOUNT
FY78 - $250,000; FY79 - $200,000; FY80 - $200,000; TOTAL $650,000
TIME FRAME
JANUARY, 1978 TO JUNE, 1980
STATUS
COMPLETED JUNE, 1978
LOCATION
MERCER COUNTY, NORTH DAKOTA

ABSTRACT

THE DATA SOURCES CATALOG WAS DEVELOPED BY THE MERCER COUNTY EDB AS PART OF ITS GROWTH MANAGEMENT PLANNING PROGRAM. THE CATALOG IS A "WHERE TO FIND IT" DOCUMENT WHICH CONTAINS SECTIONS ON DEMOGRAPHY, HOUSING, ECONOMY, LAND USE, ORDINANCES, PUBLIC FACILITIES AND SERVICES, TRANSPORTATION, ENVIRONMENT, UTILITIES, ENERGY USE, AND ENERGY PRODUCTION. MORE THAN 200 DATA SOURCES ARE CITED IN THE CATALOG AND ALL ARE CROSS REFERENCED IN THE INDEX OF AUTHORS, TITLES AND PUBLISHERS.

STUDY AFFILIATION

THIS PROJECT IS PART OF 'RURAL ENERGY CONSERVATION DEMONSTRATION LABORATORY,' ERIS, VOL. 4; NO. 1,

Nos. 00001387,00001389,00001390, 00001391,00001392,00001393,0000-1394,00001395,00001396.

REPORTS AND PUBLICATIONS

"DATA SOURCES CATALOG"; WILL WALTON, REPORT NO. 2 IN A SERIES OF 9; JUNE 1978; PUBLISHED BY MERCER COUNTY ENERGY DEVELOPMENT BOARD. THIS REPORT IS AVAILABLE FROM MERCER COUNTY EDB / P. O. BOX 670 / HAZEN, ND 58545

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00001390

PROJECT TITLE

GOALS, POLICIES AND OBJECTIVES FOR GROWTH MANAGEMENT

PROJECT NUMBER

03

INVESTIGATORS

WILL WALTON

RESEARCH INSTITUTION

MERCER COUNTY ENERGY DEVELOPMENT BOARD / P. O. BOX 670 / HAZEN, ND 58545 / (701)748-6361

COOPERATOR

JOHN GENEREUX, ST. PAUL, MINNESOTA

PRIMARY SPONSOR

DEPARTMENT OF ENERGY / JACOB KAMINSKY, PROGRAM MANAGER / 20 MASSACHUSETTS AVENUE NW / WASHINGTON, D. C. 20545 / (202)376-4818

PRIMARY FUNDING AMOUNT

FY78 - $250,000; FY79 - $200,000; FY80 - $200,000; TOTAL $650,000

TIME FRAME

JANUARY, 1978 TO JUNE, 1980

STATUS

COMPLETED JULY, 1978

LOCATION

MERCER COUNTY, NORTH DAKOTA

ABSTRACT

CHARGED WITH THE RESPONSIBILITY OF DEVELOPING A GROWTH MANAGEMENT PLAN FOR AN ENERGY DEVELOPMENT IMPACT AREA, THE MERCER COUNTY EDB SELECTED A CONSULTANT FIRM TO COMPLETE THREE BASIC ITEMS ON CITIZEN PARTICIPATION WHICH WERE DESIGNED TO DEVELOP AN UNDERSTANDING OF PUBLIC GOALS, POLICIES AND OBJECTIVES FOR GROWTH MANAGEMENT. THE THREE PROJECTS ACCOMPLISHED WERE (1) A CONTENT ANALYSIS OF PREVIOUSLY PUBLISHED DOCUMENTS ON MERCER COUNTY; (2) PUBLIC MEETINGS IN WHICH PLANNING TOPICS WERE REVIEWED IN PREPARED WORKBOOKS; AND (3) A RANDOM HOUSEHOLD SURVEY OF RESIDENTS TO OBTAIN COMMENTS ON SEVERAL BASIC QUESTIONS. THE FINDINGS COVER PUBLIC DECISION MAKING, PUBLIC PLANNING, PUBLIC FINANCING, PUBLIC ADMINISTRATION, AGRICULTURE, CULTURAL AND SOCIAL QUESTIONS, ECONOMICS, EDUCATION, ENERGY CONSERVATION, HEALTH AND PUBLIC SAFETY, NATURAL RESOURCES, AND RECREATION.

STUDY AFFILIATION

THIS PROJECT IS PART OF "RURAL ENERGY CONSERVATION DEMONSTRATION LABORATORY", FRIS, VOL. 4, NO. 1,

Nos. 00001387,00001388,00001389,0000-1391,00001392,00001393,00001394,0000 1395,00001396.

REPORTS AND PUBLICATIONS

GOALS, POLICIES AND OBJECTIVES FOR GROWTH MANAGEMENT; WILL WALTON, JOHN AND MICHELE GENEREUX; REPORT NO. 3 IN A SERIES OF 9; JULY, 1978; ISSUED BY MERCER COUNTY ENERGY DEVELOPMENT BOARD. THIS REPORT IS AVAILABLE FROM MERCER COUNTYE EDB / P. O. BOX 670 / HAZEN, ND 58545

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00001391

PROJECT TITLE

ENERGY CONSERVATION GUIDEBOOK

PROJECT NUMBER

05

INVESTIGATORS

WARREN L. TVENGE, TVENGE-LARSON ARCHITECTS / 405 E. BROADWAY / BISMARCK, ND 58501 / (701)258-1600

COOPERATOR

DR. LES RICHARDSON / UNIV. OF N. D. / FARGO, N. D.

PRIMARY SPONSOR

MERCER COUNTY EDB / WILL WALTON / P. O. BOX 670 / HAZEN, ND 58545 / (701)748-6361

PRIMARY FUNDING AMOUNT

FY78 - $8,000

TIME FRAME

MARCH, 1978 TO NOVEMBER, 1978

STATUS

COMPLETED NOVEMBER, 1978

LOCATION

MERCER COUNTY, N. D.

ABSTRACT

ENERGY CONSERVATION GUIDEBOOK FULFILLS PART OF THE

EDB'S CONTRACTUAL ARRANGEMENT WITH THE U. S. DOE FOR THE "CONDUCT OF ENERGY CONSERVATION" ACTIVITIES. THE GUIDEBOOK TAKES A COMPREHENSIVE LOOK AT HOW TO REDUCE ENERGY CONSUMPTION IN BUILDINGS IN MERCER COUNTY. THE BOOK DESCRIBES THE CLIMATE OF THE COUNTY AND PRESENTS AN OVERVIEW OF ENERGY CONSERVING PRINCIPLES AND TECHNIQUES. THE SECTION ON MERCER COUNTY'S CLIMATE CONTAINS DATA ON TEMPERATURE, HEATING AND COOLING DEGREE DAYS, PRECIPITATION, SUNSHINE AND CLOUDINESS, HUMIDITY AND WIND. THE PORTION ON ENERGY CONSERVATION DETAILS SITE SELECTION, BUILDING SHAPE, ROOM ORIENTATION, OPENINGS, WINDOWS, LANDSCAPING, BUILDING MATERIALS, SOLAR HEATING, LIGHT AND COLOR, AND COMMUNITY PLANNING AREAS OF CONCERN.

STUDY AFFILIATION

THIS PROJECT IS PART OF 'RURAL CONSERVATION DEMONSTRATION LABORATORY,' ERIS, VOL. 4, NO. 1, *Nos. 00001387,00001388,00001389,00001390,00001392,00001393,00001394,00001395,00001396,*

REPORTS AND PUBLICATIONS

"ENERGY CONSERVATION GUIDEBOOK FOR MERCER COUNTY, NORTH DAKOTA;" TVENGE-LARSON ARCHITECTS; REPORT NO. 5 OF 9; OCTOBER, 1978; MERCER COUNTY EDB. THIS REPORT IS AVAILABLE FROM MERCER COUNTY EDB / P. O. BOX 670 / HAZEN, ND 58545

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00001392

PROJECT TITLE

GROWTH MANAGEMENT CHOICES IN MERCER COUNTY, NORTH DAKOTA

PROJECT NUMBER

04

INVESTIGATORS

WILL WALTON

RESEARCH INSTITUTION

MERCER COUNTY ENERGY DEVELOPMENT BOARD / P. O. BOX 670 / HAZEN, ND 58545 / (701)748-6361

COOPERATOR

NATIONAL BIOCENTRIC, INC. / 2233 HAMLINE AVENUE NO. / ST. PAUL, MINNESOTA 55113

PRIMARY SPONSOR

U. S. DEPT. OF ENERGY / JACOB KAMINSKY, PROGRAM MANAGER / 20 MASSACHUSETTS AVE. NW / WASHINGTON, D. C. 20545 / (202)376-4818

PRIMARY FUNDING AMOUNT

FY78 - $250,000; FY79 - $200,000; FY80 - $200,000; TOTAL: $650,000

TIME FRAME

JANUARY, 1978 TO JUNE, 1980

STATUS

COMPLETED JULY, 1978

LOCATION

MERCER COUNTY, NORTH DAKOTA

ABSTRACT

GROWTH MANAGEMENT CHOICES IS A PART OF THE MERCER COUNTY ENERGY DEVELOPMENT BOARD'S GROWTH MANAGEMENT PLAN WHICH REVIEWS POPULATION DISTRIBUTION, LAND USE, HOUSING, PUBLIC FACILITIES AND SERVICES, AND PUBLIC FINANCING. THE REVIEWED TOPICS WERE COMPARED IN THREE BASIC GROWTH MANAGEMENT ALTERNATIVES: RANDOM SPRAWL, EXPANDING CITIES, AND NEW TOWNS. EACH OF THE THREE ALTERNATIVES DISCUSSES 1) DEVELOPMENT PATTERNS (LOCATION, USES, DENSITY); 2) REVENUES (COAL SEVERANCE, COAL CONVERSION AND PROPERTY TAXES); 3) COSTS (GENERAL GOVERNMENT, SEWER AND WATER, POLICE AND FIRE PROTECTION, ROADS AND SCHOOL BUSSING); 4) ENERGY CONSERVATION; AND 5) GOVERNMENT ORGANIZATION/ GROWTH MANAGEMENT PROCEDURES.

STUDY AFFILIATION

THIS PROJECT IS PART OF 'RURAL CONSERVATION DEMONSTRATION LABORATORY,' ERIS, VOL. 4, NO. 1, AND IS RELATED TO ENERGY RESEARCH INFORMATION SYSTEMS PROJECT REPORTS, VOL. 4, NO. 1, *Nos. 00001387,00001388,00001389,00001390,00001391,00001393,00001394,00001395,00001396.*

REPORTS AND PUBLICATIONS

GROWTH MANAGEMENT CHOICES IN MERCER COUNTY; WILL WALTON AND NATIONAL BIOCENTRIC, INC.; REPORT NO. 4 IN A SERIES OF 9; SEPTEMBER, 1978; ISSUED BY MERCER COUNTY ENERGY DEVELOPMENT BOARD. THIS REPORT IS AVAILABLE FROM: MERCER COUNTY EDB / P. O. BOX 670 / HAZEN, ND 58545

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00001393

PROJECT TITLE

ENERGY CONSERVATION IN MERCER COUNTY, NORTH DAKOTA

PROJECT NUMBER

07

INVESTIGATORS

WILL WALTON / MERCER COUNTY ENERGY DEVELOPMENT BOARD / P. O. BOX 670 / HAZEN, ND 58545 / (701)748-6361

COOPERATOR

RESOURCE PLANNING ASSOCIATES, INC. / WASHINGTON, D. C.

PRIMARY SPONSOR

DEPT. OF ENERGY / JACOB KAMINSKY / 20 MASSACHUSETTS AVE. NW / WASHINGTON, D. C. 20545 / (202)376-4818

PRIMARY FUNDING AMOUNT

FY78 - $250,000; FY79 - $200,000; FY80 - $200,000; TOTAL: $650,000

TIME FRAME

JANUARY, 1978 TO JUNE, 1980

STATUS

COMPLETED JANUARY, 1979

LOCATION

MERCER COUNTY, N. D.

ABSTRACT

THE EDB HAS DEVELOPED AN ENERGY CONSERVATION PROGRAM AS A PART OF ITS GROWTH MANAGEMENT PLAN. ENERGY MANAGEMENT AND CONSERVATION ARE VITAL ELEMENTS IN COMMUNITY PLANNING. THE ELEMENTS OF THE PROGRAM - CONSERVATION IDEAS, IMPLEMENTATION MECHANISONS, AND THE MONITORING PROCESS ARE COORDINATED WITH THE GROWTH MANAGEMENT PLANNING EFFORT. THE REPORT ON THE ECP DISCUSSES 5 TASKS: (1) DEVELOPING AN ENERGY CONSUMPTION PROFILE; (2) DEFINING ENERGY CONSERVATION OBJECTIVES; (3) SELECTING ENERGY CONSERVATION IDEAS; (4) IMPLEMENTING SELECTED IDEAS; AND (5) EVALUATION PROGRESS ON THE ECP IS LISTED AS POLICIES, REGULATIONS, INCENTIVES, EDUCATION PROGRAM,

STUDY AFFILIATION

THIS PROJECT IS PART OF 'RURAL ENERGY CONSERVATION DEMONSTRATION LABORATORY,' ERIS, VOL. 4, NO. 1,

Nos. 00001387,00001388,00001389, 00001390,00001391,00001392,00001394,00001395,00001396.

REPORTS AND PUBLICATIONS

ENERGY CONSERVATION IN MERCER COUNTY; MERCER CO. EDB: SEVEN OF NINE: JANUARY, 1979; MERCER CO. EDB. THIS REPORT IS AVAILABLE FROM: MERCER COUNTY EDB / P. O. BOX 670 / HAZEN, ND 58545

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00001394

PROJECT TITLE

MONITORING ENERGY DEVELOPMENT

PROJECT NUMBER

06

INVESTIGATORS

WILL WALTON / MERCER COUNTY ENERGY DEVELOPMENT BOARD (EDB) / P. O. BOX 670 / HAZEN, ND 58545 / (701)748-6361

COOPERATOR

BRUCE POSTER / SANTA FE, NEW MEXICO

PRIMARY SPONSOR

DEPT. OF ENERGY / JACOB KAMINSKY / 20 MASSACHUSETTS AVE. NW / WASHINGTON, D. C. 20545 / (202)376-4818

PRIMARY FUNDING AMOUNT

FY78 - $250,000; FY79 - $200,000; FY80 - $200,000
TOTAL: $650,000

TIME FRAME

JANUARY, 1978 TO JUNE, 1980

STATUS

COMPLETED JANUARY, 1979

LOCATION

MERCER COUNTY, N. D.

ABSTRACT

TO EFFECTIVELY PLAN FOR CHANGES AND THE IMPACTS OF GROWTH, THE MERCER COUNTY EDB IS DEVELOPING A GROWTH MANAGEMENT PLAN. TO ENSURE THAT THE PLAN REFLECTS CHANGING NEEDS AND CIRCUMSTANCES, THE EDB HAS DEVELOPED A MONITORING PROCESS. THE MONITORING PROGRAM WILL ENSURE THAT DATA ON SOCIAL AND ECONOMIC CONDITIONS, ENERGY USAGE, AND ENVIRONMENTAL IMPACTS IS PROVIDED AS NEEDED TO A VARIETY OF PARTIES INTERESTED IN AND AFFECTED BY ENERGY AND COMMUNITY DEVELOPMENT. AREAS OF CONCERN IN THE MONITORING PROGRAM ARE THE ENERGY INDUSTRY WORK FORCE; SOCIAL, ECONOMIC AND FISCAL ITEMS (EMPLOYMENT, DEMOGRAPHIC, INCOME, HOUSING, BUSINESS, PUBLIC SERVICES, PUBLIC COSTS AND REVENUES, TRANSPORTATION, LAND USE, MEDICAL, SOCIAL); ENERGY CONSUMPTION AND ENVIRONMENT (RECLAMATION, WATER QUALITY AND QUANTITY, AIR QUALITY, PUBLIC HEALTH AND WILDLIFE).

STUDY AFFILIATION

THIS PROJECT IS PART OF 'RURAL ENERGY CONSERVATION DEMONSTRATION LABORATORY,' ERIS, VOL. 4, NO. 1,

'Nos. 00001387,00001388,00001389, 00001390,00001391,00001392,00001393,00001395,00001396.

REPORTS AND PUBLICATIONS

MONITORING ENERGY DEVELOPMENT IN MERCER COUNTY, N. D.: WILL WALTON & BRUCE POSTER; NUMBER 6 OF 9: JANUARY, 1979; MERCER COUNTY EDB. THIS REPORT IS AVAILABLE FROM: MERCER COUNTY EDB / P. O. BOX 670 / HAZEN, ND 58545

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00001395

PROJECT TITLE

FORECASTS FOR PLANNING

PROJECT NUMBER

08

INVESTIGATORS

WILL WALTON

RESEARCH INSTITUTION

MERCER COUNTY ENERGY DEVELOPMENT BOARD / P. O. BOX 670 / HAZEN, ND 58545 / (701)748-6361

PRIMARY SPONSOR

DEPT. OF ENERGY / JACOB KAMINSKY, PROJECT MANAGER / 20 MASSACHUSETTS AVE. NW/ WASHINGTON, D. C. 20545 / (202)376-4818

PRIMARY FUNDING AMOUNT

FY78 - $250,000; FY79 - $200,000; FY80 - $200,000;
TOTAL: $650,000

TIME FRAME

JANUARY, 1978 TO JUNE, 1980

STATUS

COMPLETED JANUARY, 1979

LOCATION

MERCER COUNTY, NORTH DAKOTA

ABSTRACT

"FORECASTS FOR PLANNING" IS PART OF THE MERCER COUNTY ND. GROWTH MANAGEMENT PLANNING EFFORT. THE PUBLICATION DISCUSSES PROJECTIONS AVAILABLE FOR DEMOGRAPHIC, HOUSING, SCHOOL ENROLLMENTS, ENERGY PRODUCTION AND CAPITAL EXPENDITURES. FORECASTS USED IN THE DOCUMENT ARE FROM THE N. D. REGIONAL ENVIRONMENTAL ASSESSMENT PROGRAM (REAP) AND THE INTER-INDUSTRY TECHNICAL ASSISTANCE TEAM (ITAT). THE ENERGY PRODUCTION CHAPTER, FOR EXAMPLE, DISCUSSES LIGNITE COAL RESOURCES, IN MERCER COUNTY AND THE NATION, COAL RESOURCE TERMS, COAL MINES AND THEIR PRODUCTION, ENERGY CONVERSION FACILITIES, AND CONSTRUCTION AND OPERATING EMPLOYMENT ESTIMATES FOR COAL MINES AND ENERGY CONVERSION FACILITIES.

STUDY AFFILIATION

THIS PROJECT IS PART OF 'RURAL ENERGY CONSERVATION DEMON-AND IS ALSO RELATED TO ENERGY RESEARCH INFORMATION SYSTEMS PROJECT REPORT, VOL.4, NO.1, *Nos. 00001388,00001389,00001390, 00001391,00001392,00001393,00001394, 00001396.*

REPORTS AND PUBLICATIONS

"FORECASTS FOR PLANNING," WILL WALTON, EIGHT OF NINE, JANUARY 15, 1979, MERCER COUNTY EDB. THIS REPORT IS AVAILABLE FROM: MERCER COUNTY EDB / P. O. BOX 670 / HAZEN, ND 58545

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00001396

PROJECT TITLE

ECONOMIC DIVERSIFICATION

PROJECT NUMBER

09

RESEARCH INSTITUTION

MERCER COUNTY, N. D. ENERGY DEVELOPMENT BOARD / P. O. BOX 670 / HAZEN, ND 58545 / (701)748-6361

COOPERATOR

RESOURCE PLANNING ASSOCIATES, INC. / WASHINGTON, D. C.

PRIMARY SPONSOR

DEPT. OF ENERGY / JACOB KAMINSKY / 20 MASSACHUSETTS AVE. NW / WASHINGTON, D. C. 20545 / (202)376-4818

PRIMARY FUNDING AMOUNT

FY78 - $250,000; FY79 - $200,000; FY80 - $200,000; TOTAL: $650,000

TIME FRAME

JANUARY, 1978 TO JUNE, 1980

STATUS

COMPLETED JANUARY, 1979

LOCATION

MERCER COUNTY / NORTH DAKOTA

ABSTRACT

TO ASSIST THE COMMUNITIES OF MERCER COUNTY, ND IN PLANNING FOR PROJECTED GROWTH FROM THE DEVELOPMENT OF ENERGY PRODUCTION FACILITIES THE EDB IS PREPARING A GROWTH MANAGEMENT PLAN. ALSO TYPICAL OF THE RAPID GROWTH SITUATION IS THE DEPARTURE OF WORKERS FOLLOWING CONSTRUCTION. IN ANTICIPATION OF THE SPECIFIC PROBLEMS GENERATED BY THE SUDDEN LOSS OF POPULATION WHEN CONSTRUCTION ENDS THE EDB HAS UNDERTAKEN AN ECONOMIC DIVERSIFICATION PROGRAM (EDP). THE GOAL OF THE EDP IS TO ACHIEVE MAXIMUM, ORDERLY, BALANCED ECONOMIC DEVELOPMENT BY UTILIZING THE NATURAL, MATERIAL AND HUMAN RESOURCES OF MERCER COUNTY. THE PUBLISHED REPORT ON THE EDP DISCUSSES DEVELOPMENT OF THE PROGRAM, PROGRESS ON THE SCREENING OF POTENTIAL INDUSTRIES, AND FEASIBILITY STUDIES ON FLY ASH BRICK, GREENHOUSE PRODUCTION AND AQUACULTURE.

STUDY AFFILIATION

THIS PROJECT IS PART OF 'RURAL ENERGY CONSERVATION DEMONSTRATION LABORATORY,' ERIS. VOL 4, NO. 1, PROJECT *Nos. 00001387,00001388,00001389, 00001390,00001391,00001392,00001393,00001394.00001395.*

REPORTS AND PUBLICATIONS

ECONOMIC DIVERSIFICATION PROGRAM FOR MERCER COUNTY, ND. MERCER COUNTY EDB; NINE OF NINE; JANUARY 15, 1979. MERCER COUNTY EDB. THIS REPORT IS AVAILABLE FROM MERCER COUNTY EDB / P. O. BOX 670 / HAZEN, ND 58545

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00001397

PROJECT TITLE

A SOCIOECONOMIC PROFILE OF SELECTED COAL AREAS OF THE NORTHERN GREAT PLAINS

INVESTIGATORS

PAUL R. MYERS / FRED K. HINES / JEFF V. CONOPASK / LLOYD D. BENDER / DAVID L. BROWN / STANLEY VOELKER

RESEARCH INSTITUTION

U. S. DEPT. OF AGRICULTURE, ECONOMIC DEV. DIV. / WASHINGTON, D. C. 20250

PRIMARY SPONSOR

U. S. DEPT. OF AGRICULTURE, ECONOMIC DEV. DIV / WASHINGTON, D.C. 20250

STATUS

COMPLETED MARCH, 1978

LOCATION

EASTERN MT / WESTERN ND / WYOMING / NORTHWESTERN SOUTH DAKOTA / NORTHERN GREAT PLAINS COAL AREAS.

ABSTRACT

THIS STUDY PROVIDES A SOCIOECONOMIC PROFILE OF SELECTED COAL AREAS OF THE NORTHERN GREAT PLAINS. POTENTIAL PROBLEMS THAT MAY ARISE FROM COAL DEVELOPMENT ARE IDENTIFIED AND MEASURED. THE STUDY COVERS SUCH ITEMS AS HISTORICAL AND RECENT TRENDS IN POPULATION, INCOME, AND EMPLOYMENT FOR

THE REGION AS A WHOLE, AND FOR SELECTED AREAS AND TOWNS WITHIN THE REGION. DATA FOR THE REGION ARE COMPARED WITH DATA FOR THE ENTIRE UNITED STATES AND ALL U. S. NONMETRO COUNTIES. THE STUDY MAKES WIDE USE OF DATA FROM THE CENSUS OF POPULATION. THE FEDERAL STATE COOPERATIVE SERIES OF COUNTY POPULATION ESTIMATES ARE USED TO MEASURE 1970-74 POPULATION AND COMPONENTS OF CHANGE.

REPORTS AND PUBLICATIONS

A SOCIOECONOMIC PROFILE OF THE NORTHERN GREAT PLAINS COAL REGION, BY PAUL R. MYERS, FRED K. HINES, JEFF V. CONOPASK, ECONOMICS, STATISTICS, AND COOPERATIVES SERVICE, U. S. DEPARTMENT OF AGRICULTURE, AGRICULTURAL ECONOMIC REPORT NO. 400, MARCH 1978.

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00001398

PROJECT TITLE

CULTURAL RESOURCES INVENTORY AND EVALUATION OF THE SPRING CREEK MINE

INVESTIGATORS

DEE C. TAYLOR / CARMEN SHELDON / G. ALAN CARMICHAEL

RESEARCH INSTITUTION

UNIV. OF MONTANA, DEPT. OF ANTHROPOLOGY / MISSOULA, MONTANA 59812 / 243-5921

PRIMARY SPONSOR

NORTHERN ENERGY RESOURCES CO. / PORTLAND, OREGON

PRIMARY FUNDING AMOUNT

FY 78-$55608; FY TO 81- $155000 TOTAL: $210608

TIME FRAME

JUNE 1977 TO MAY 1981

LOCATION

MONTANA / BIG HORN COUNTY / DECKER, MONTANA; TONGUE RIVER RESERVOIR. T8-9S, R39-40E, MPM

ABSTRACT

IDENTIFICATION, LOCATION, DESCRIPTION, ANALYSIS, RECOMMENDATIONS, MITIGATION OF CULTURAL RESOURCES WITHIN THE AREA OF IMPACT, SPRING CREEK COAL MINE.

REPORTS AND PUBLICATIONS

WORKING REPORTS ONLY THUS FAR. ALL WILL BE INCLUDED IN A FINAL PROJECT REPORT.

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00001399

PROJECT TITLE

PREPARATION OF LOCAL GOVERNMENT IMPACT STATEMENTS

INVESTIGATORS

TERRY STUART / PETER D. NICHOLS / KATHLEEN BUTLER / ROBERT MOORE / CLEMENT MCKEON

RESEARCH INSTITUTION

STUART/NICHOLS ASSOCIATES / 1726 CHAMPA STREET, SUITE 307 / DENVER, CO 80202 / 303 825-0586

PRIMARY SPONSOR

OLD WEST REGIONAL COMMISSION / 1730 K STREET, NW, SUITE 426 / WASHINGTON, D.C. 20006 / 202 634-3907

PRIMARY FUNDING AMOUNT

$200,000

TIME FRAME

JUNE, 1977 TO OCTOBER, 1978

STATUS

COMPLETED OCTOBER, 1978

LOCATION

WYOMING / CAMPBELL, CARBON, CONVERSE, CROOK, JOHNSON, LINCOLN, SWEETWATER, UINTA, AND WESTON COUNTIES

ABSTRACT

ALTHOUGH MOST AREAS IMPACTED BY ENERGY DEVELOPMENT ARE THE SUBJECT OF ONE OR MORE ENVIRONMENTAL IMPACT STATEMENTS, FEW EIS'S ADDRESS CUMMULATIVE RATHER THAN INCREMENTAL DEVELOPMENT AND A COMPREHENSIVE ANALYSIS OF FUTURE LOCAL GOVERNMENTAL IMPACTS IS GENERALLY ABSENT. SUCH INFORMATION IS ESSENTIAL IF ADVERSE SOCIOECONOMIC IMPACTS ARE TO BE MITIGATED OR AVOIDED BY RESPONSIBLE PUBLIC OFFICIALS. THE OBJECTIVE OF THE PROJECT WAS TO PREPARE IMPACT ANALYSES FOR LOCAL GOVERNMENTS AFFECTED BY ENERGY DEVELOPMENT WHICH WOULD EXAMINE CUMMULATIVE IMPACTS OF LOCAL GOVERNMENT OPERATIONS AND SERVICES FOR THE PERIOD 1978 TO 1985.
MAJOR POINTS OF FOCUS IN THE ANALYSIS WERE DESCRIPTIONS OF CURRENT EXPENSES, OPERATING BUDGETS AND AVAILABLE REVENUES. ANNUAL PROJECTIONS OF EXPENSES AND REVENUES AT THE DEPARTMENTAL LEVEL WERE AGGREGATED FOR ANALYSIS OF EACH LOCAL GOVERNMENT'S OVERALL FISCAL NEEDS. THE ANALYSIS HIGHLIGHTS FUTURE FISCAL AND MANAGEMENT PROBLEMS THAT MUST BE ADDRESSED FOR IMPACT MITIGATION AND AVOIDANCE STRATEGIES AT THE LOCAL LEVEL OR FOR COMPLEMENTARY STATE, FEDERAL AND INDUSTRY EFFORTS.
THE PROJECT COVERED COUNTY, MUNICIPAL AND SCHOOL DISTRICT GOVERNMENTS IN THE FOLLOWING ENERGY IMPACT-AREAS OF WYOMING: CAMPBELL, CARBON, SWEETWATER, LINCOLN, JOHNSON, CROOK, UINTA AND WESTON COUNTIES.(SNA)

STUDY AFFILIATION

THIS PROJECT IS RELATED TO 'PREPARATION OF LOCAL GOVERNMENT IMPACT STATEMENTS, ENERGY RESEARCH INFORMATION SYSTEMS, PROJECTS REPORT, VOL. 4, NO.1, SERIAL NO. 0001400 .

REPORTS AND PUBLICATIONS

A SERIES OF 56 REPORTS-ALL IMPACT ANALYSES COVERING CAMPBELL, CARBON, SWEETWATER, LINCOLN, JOHNSON, CROOK, UINTA AND WESTON COUNTIES IN WYOMING. A COPY OF THE TITLES IS AVAILABLE FROM: OLD WEST REGIONAL COMMISSION, BILLINGS, MT 59101 AND THE REPORTS THEMSELVES ARE AVAILABLE FROM: MR. G. INGOLD / OLD WEST REGIONAL COMMISSION / 1730 K ST., NW / WASHINGTON, D. C. 20036.

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00001400
PROJECT TITLE
PREPARATION OF LOCAL GOVERNMENT IMPACT STATEMENTS
INVESTIGATORS
PETER D. NICHOLS / TERRY STUART / KATHLEEN BUTLER / CHRISTINE CONTI LARKE
RESEARCH INSTITUTION
STUART/NICHOLS ASSOCIATES / 1726 CHAMPA STREET / DENVER CO 80202 / 303 825-0586
PRIMARY SPONSOR
OLD WEST REGIONAL COMMISSION / 228 HEDDEN EMPIRE BUILDING / BILLINGS, MT 59101 / 406 657-6665 / KENNETH A. BLACKBURN
PRIMARY FUNDING AMOUNT
$78,131
TIME FRAME
APRIL, 1979 TO OCTOBER, 1979
LOCATION
WY / FREMONT, NATRONA, AND SHERIDAN COUNTIES
ABSTRACT

ALTHOUGH MOST IMPACTED AREAS ARE THE SUBJECT OF ONE OR MORE ENVIRONMENTAL IMPACT STATEMENTS, FEW EIS'S ADDRESS CUMULATIVE RATHER THAN INCREMENTAL DEVELOPMENT AND A COMPREHENSIVE ANALYSIS OF FUTURE LOCAL GOVERNMENTAL IMPACTS IS GENERALLY ABSENT. SUCH INFORMATION IS ESSENTIAL IF ADVERSE SOCIOECONOMIC IMPACTS ARE TO BE MITIGATED OR AVOIDED BY RESPONSIBLE PUBLIC OFFICIALS.

THE OBJECTIVE OF THE PROJECT IS TO PREPARE IMPACT ANALYSES FOR LOCAL GOVERNMENTS AFFECTED BY ENERGY DEVELOPMENT WHICH WOULD EXAMINE CUMULATIVE IMPACTS ON LOCAL GOVERNMENT OPERATIONS AND SERVICES FOR THE PERIOD FROM 1978 TO 1985. MAJOR POINTS OF FOCUS IN THE ANALYSIS ARE DESCRIPTIONS OF CURRENT SERVICES, FACILITIES AND OPERATIONS IN ADDITION TO PROJECTIONS OF FUTURE CAPITAL EXPENSES, OPERATING BUDGETS AND AVAILABLE REVENUES. ANNUAL PROJECTIONS OF EXPENSES AND REVENUES AT THE DEPARTMENT LEVEL WILL BE AGGREGATED FOR ANAYLSIS OF EACH LOCAL GOVERNMENT'S OVERALL FISCAL NEEDS.

THE ANALYSIS HIGHLIGHTS FUTURE FISCAL AND MANAGEMENT PROBLEMS *THAT* MUST BE ADDRESSED FOR IMPACT MITIGATION AND AVOIDANCE STRATEGIES AT THE LOCAL LEVEL OR FOR COMPLEMENTARY STATE, FEDERAL AND INDUSTRY EFFORTS.

THE PROJECT COVERS COUNTY, MUNICIPAL AND SCHOOL DISTRICT GOVERNMENTS IN THE FOLLOWING ENERGY IMPACT AREAS OF WYOMING: FREMONT, NATRONA AND SHERIDAN COUNTIES. WITH A PREVIOUS STUDY COVERING OTHER IMPACT COUNTIES, ANALYSIS WILL HAVE BEEN FOR ALL WYOMING IMPACT AREAS ON COMPLETION OF THIS PROJECT.

STUDY AFFILIATION
THIS PROJECT IS RELATED TO 'PREPARATION OF LOCAL GOVERNMENT IMPACT STATEMENTS,' ENERGY RESEARCH INFORMATION SYSTEM, PROJECTS REPORT, VOL.4, NO. 1, NO. 0000*1399* .

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00001401
PROJECT TITLE
SOCIOECONOMIC IMPACT MITIGATION MECHANISMS IN SIX STATES-CATEGORIES, GENERALIZATIONS AND UNRESOLVED ISSUES
PROJECT NUMBER
553S(ERDA SIX STATES)
INVESTIGATORS
JOHN S. GILMORE / D. K. FLORY / D. M. HAMMOND / K. D. MOORE / D. C. CODDINGTON
RESEARCH INSTITUTION
DENVER RESEARCH INSTITUTE, INDUSTRIAL ECONOMICS DIV. / UNIV. OF DENVER / DENVER CO 80208 / 303 753-3207
COOPERATOR
BICKERT, BROWNE, CODDINGTON AND ASSOCIATES, INC. / 100 SOUTH MADISON / DENVER CO 80209 / 303 321-2547
PRIMARY SPONSOR
U. S. ERDA, PLANNING, ANALYSIS & EVALUATION OFFICE / U. S. DEPT. OF ENERGY / 1200 PENNSYLVANIA AVE.,NW / WASHINGTON, D. C. 20461 / 202 663-9353
PRIMARY FUNDING AMOUNT
$35,089
TIME FRAME
APRIL, 1977 TO SEPTEMBER, 1977
STATUS
COMPLETED SEPTEMBER, 1977
LOCATION
CO / IL / KY / LA / MA / MT
ABSTRACT

PROBLEM: NEGATIVE SOCIOECONOMIC IMPACTS OCCUR IN ENERGY RESOURCE DEVELOPMENT FROM EXTRACTION TO CONSUMPTION. THESE IMPACTS MAY CAUSE PRODUCTIVITY DECREASES OR LITIGATION, FOR EXAMPLE, WHICH MAY PRECIPITATE AN ATTEMPT AT A LEGISLATIVE REMEDY (TAXES OR REGULATIONS) WHICH MAY OR MAY NOT PRODUCE THE DESIRED RESULTS UNLESS ADEQUATE SOCIOECONOMIC IMPACT ASSESSMENT IS INCLUDED IN POLICY AND DECISION MAKING.

OBJECTIVES: (1) IDENTIFY THE SORTS OF ENERGY DEVELOPMENT (OR MAJOR SHIFTS OR SUBSTITUTIONS IN ENERGY SUPPLY IN THE STATES; (2) IDENTIFY BOTH PERCEPTIONS OF ANTICIPATED SOCIOECONOMIC IMPACTS AND STATE MITIGATION MECHANISMS FOR DEALING WITH NEGATIVE IMPACTS; (3) ATTEMPT GENERALIZATIONS ON JURISDICTIONAL CONFLICT AND MISMATCH, COMPETITION FOR SCARCE RESOURCES, SHIFTS IN COMPARATIVE ADVANTAGE, AND BOOM TOWN IMPACTS; AND (4) STATE UNRESOLVED ISSUES. ALL WITH AN EYE TO FACILITATING BETTER INFORMED POLICY AND DECISION MAKING.

APPROACH: LITERATURE SEARCH AND PERSONAL INTERVIEWS

WITH STATE AND ENERGY COMPANY OFFICIALS WHO LATER REVIEWED AND COMMENTED ON DRAFT, AND PROVISION OF DETAILS OF EACH OF THE SIX STATES' APPROACHES IN A 134 PAGE APPENDIX.

REPORTS AND PUBLICATIONS

SOCIOECONOMIC IMPACT MITIGATION MECHANISMS IN SIX STATES-CATEGORIES, GENERALIZATIONS, AND UNRESOLVED ISSUES, BY GILMORE, FLORY, HAMMOND, MOORE & CODDINGTON, DENVER RESEARCH INSTITUTE, UNIV. OF DENVER, SEPTEMBER, 1977. THIS REPORT IS AVAILABLE FROM NTIS, SPRINGFIELD, VA: # TID-28201.

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00001402

PROJECT TITLE

EFFECTS OF SOCIOECONOMIC IMPACTS ON INTER-REGIONAL ALLOCATIONS OF POTENTIAL INCREASE IN COAL PRODUCTION

PROJECT NUMBER

S602 (ERDA TASK-II-EAST/WEST)

INVESTIGATORS

JOHN S. GILMORE / KEITH D. MOORE / DEAN C. CODDINGTON

RESEARCH INSTITUTION

DENVER RESEARCH INSTITUTE, INDUSTRIAL ECONOMICS DIV. /
UNIV. OF DENVER / DENVER CO 80208 / 303 753-3207

COOPERATOR

BICKERT, BROWNE, CODDINGTON AND ASSOCIATES, INC. /
100 SOUTH MADISON / DENVER CO 80209 / 303 321-2547

PRIMARY SPONSOR

U. S. ERDA. PLANNING, ANALYSIS & EVALUATION OFFICE /
U. S. DEPT. OF ENERGY / 1200 PENNSYLVANIA AVE., NW /
WASHINGTON, D. C. 20461 / 202 663-9353

PRIMARY FUNDING AMOUNT

$23,900

TIME FRAME

JULY, 1977 TO SEPEMBER, 1977

STATUS

COMPLETED SEPTEMBER, 1977

LOCATION

APPALACHIA / MID-WEST / MOUNTAIN AND NORTHERN PLAINS STATES

ABSTRACT

PROBLEM: NEGATIVE SOCIOECONOMIC IMPACTS AND/OR PROBLEMS RESULTING FROM THEM MAY CAUSE SHORTFALL IN 1985 U. S. COAL PRODUCTION, ESPECIALLY IN CENTRAL APPALACHIA AND THE WEST WHERE CONFLICTS (UNION-NONUNION IN APPALACHIA AND JURISDICTIONAL AND REGULATORY IN THE WEST) APPEAR TO PRODUCE THE GREATER DIRECT AND INDIRECT PROBLEMS. OBJECTIVES: (1) DEFINE AND CATEGORIZE SOCIOECONOMIC IMPACTS AS-MAJOR INTRACTABLE CONSTRAINTS: CONSTRAINTS WHICH CAN BE REMOVED OR EXTERNALITIES WHICH CAN BE INTERNALIZED: OR RESIDUAL CONSTRAINTS OR EXTERNALITIES. (2) DEVELOP SCENARIOS FOR CENTRAL APPALACHIA AND THE WEST. (3) DERIVE POLICY IMPLICATIONS OF SOCIOECONOMIC IMPACTS LEADING TO CONCLUDING COMMENTS.
APPROACH: USE OF LITERATURE SEARCH: CASE STUDIES IN ONE COUNTY EACH OF VIRGINIA, WEST VIRGINIA, ILLINOIS, WYOMING, AND COLORADO: INTERVIEWS WITH GOVERNMENT PERSONNEL, COAL INDUSTRY OFFICIALS AND THE UNITED MINE WORKERS OF AMERICA: PRIOR EXPERIENCE TO FULFILL OBJECTIVES.

REPORTS AND PUBLICATIONS

EFFECTS OF SOCIOECONOMIC IMPACTS ON INTER-REGIONAL ALLOCATIONS OF POTENTIAL INCREASE IN COAL PRODUCTION, BY GILMORE MOORE, CODDINGTON, DENVER RESEARCH INSTITUTE, UNIV. OF DENVER, SEPTEMBER, 1977.
THIS REPORT IS AVAILABLE FROM : NTIS, SPRINGFIELD, VA
TID-28339

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00001403
PROJECT TITLE
A NET ENERGY ANALYSIS OF SURFACE MINED COAL FROM THE NORTHERN GREAT PLAINS
PROJECT NUMBER
(40-1)-4398
INVESTIGATORS
THOMAS BALLENTINE
RESEARCH INSTITUTION
UNIV. OF FLORIDA, DEPT. OF ENVIRONMENTAL ENGINEERING SCIENCES / GAINESVILLE, FL
PRIMARY SPONSOR
U. S. ERDA
STATUS
COMPLETED 1976
LOCATION
NORTHERN GREAT PLAINS
ABSTRACT

THE OBJECTIVE OF THIS STUDY IS TO PROVIDE A NET ENERGY ANALYSIS OF SURFACE MINED COAL FROM THE NORTHERN GREAT PLAINS. FOUR SCHEMES OF COAL DEVELOPMENT ARE EVALUATED TO DETERMINE THE ENERGY REQUIRED TO DELIVER COAL-DERIVED ENERGY IN A BULK FORM TO A LOAN CENTER 1000 MILES FROM THE MINE. THE COAL DEVELOPMENT SCHEMES ANALYZED ARE: (1) THE TRANSPORT OF RAW COAL BY UNIT TRAIN TO LOAD CENTER; (2) RAIL TRANSPORT OF COAL FOLLOWED BY LOAD CENTER ELECTRICAL POWER GENERATION; (3) MINE-MOUTH ELECTRICAL POWER GENERATION WITH HIGH VOLTAGE TRANSMISSION TO LOAD CENTER; AND (4) GASIFICATION OF COAL AT THE MINE WITH PIPELINE TRANSMISSION OF GAS TO LOAD CENTER. SEVERAL SYSTEM MODELS ARE ALSO PRESENTED TO ENHANCE UNDERSTANDING AND OVERVIEW OF THE INTERDEPENDENCE OF THE COAL RESOURCES, THE ENVIRONMENT, AND THE ECONOMY OF THE NORTHERN GREAT PLAINS. THE POTENTIAL IMPACT OF SURFACE MINING IS ADDRESSED AS WELL AS THE BENEFITS TO BE OBTAINED FROM AN AFFIRMATIVE RECLAMATION PROGRAM.

REPORTS AND PUBLICATIONS

A NET ENERGY ANALYSIS OF SURFACE MINED COAL FROM THE NORTHERN GREAT PLAINS, BY THOMAS BALLENTINE, A THESIS PRESENTED TO THE GRADUATE COUNCIL OF THE UNIVERSITY OF FLORIDA IN PARTIAL FULFILLMENT OF THE REQUIREMENTS FOR THE DEGREE OF MASTER OF ENGINEERING, UNIVERSITY OF FLORIDA, 1976.

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00001404
PROJECT TITLE
COAL OIL SLURRY COMBUSTION--GAS UTILITY APPLICATION
PROJECT NUMBER
EX-76-C-01-2525
INVESTIGATORS
MAECKEL, G. E.
RESEARCH INSTITUTION
SAN ANTONIO CITY PWR. PLANT / SAN ANTONIO, TX 78296
PRIMARY SPONSOR
U. S. DEPT. OF ENERGY / 17TH & PENNSYLVANIA AVE. N.W. / WASHINGTON, D. C. 20006
TIME FRAME
OCTOBER, 1976 TO JANUARY, 1978
LOCATION
WY / TX
ABSTRACT

THE PURPOSE OF THIS PROJECT IS TO DEMONSTRATE THE FEASIBILITY OF FIRING A POWDERED COAL IN OIL SLURRY IN A UTILITY BOILER ORIGINALLY DESIGNED TO FIRE NATURAL GAS. THE GOAL IS TO PROVIDE A LOWER COST FUEL TO BRIDGE THE GAP UNTIL NUCLEAR AND OTHER ENERGY SOURCES ARE MORE WIDELY AVAILABLE. THIS WILL BE ACCOMPLISHED BY MIXING WYOMING COAL WITH OIL, AND FIRING THE SLURRY IN A NATURAL GAS BOILER THAT HAS BEEN MODIFIED AT A FRACTION OF THE COST OF A NEW COAL FIRED BOILER. THE WORK, STARTED OFFICIALLY IN OCTOBER, 1976, WILL BE ACCOMPLISHED THROUGH A COST SHARING CONTRACT WITH THE U. S. DEPARTMENT OF ENERGY, AND IS SCHEDULED FOR COMPLETION IN EARLY 1980. A BABCOCK AND WILCOX, 69 MW BOILER, DESIGNATED LEON CREEK UNIT 3, WILL BE MODIFIED FOR THIS PROJECT. THE BOILER, ORIGINALLY DESIGNED TO FIRE NATURAL GAS, IS NOT EQUIPPED WITH A PRECIPITATOR OR SOOT BLOWING EQUIPMENT. THESE ADDITIONS, PLUS EXTENDING THE STACK AND REPLACING THE BURNERS, COMPRISE THE MAJOR AREAS OF MODIFICATION. A FUEL BLENDING FACILITY, INCLUDING A COAL CRUSHER AND AN OIL HOMOGENIZER, WILL BE CONSTRUCTED AT CPS'S J. T. DEELY SITE AS THIS IS THE CLOSEST LOCATION OF AN EXISTING COAL STORAGE AND COAL HANDLING FACILITY. PART OF THIS PROJECT HAS BEEN SUBCONTRACTED.

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00001405
PROJECT TITLE
MHD INVERTER RESEARCH
INVESTIGATORS
STANLEY PETTY
RESEARCH INSTITUTION
AVCO / 2385 REVERE BEACH PARKWAY / EVERETT, MA 02149
COOPERATOR
MONTANA POWER CO. / MONTANA ENERGY & MHD RESEARCH & DEVELOPMENT INST. / ELECTRIC POWER RESEARCH INSTITUTE
PRIMARY SPONSOR
ELECTRIC POWER RESEARCH INST.

LOCATION
GX
ABSTRACT
THE MONTANA POWER COMPANY IS WORKING WITH EPRI (ELECTRIC POWER RESEARCH INSTITUTE) AND MERDI (MONTANA ENERGY AND MHD RESEARCH AND DEVELOPMENT INSTITUTE) ON THE EFFECTS OF THE ELECTRIC UTILITY SYSTEM UPON THE MHD INVERTER AND THE EFFECT OF THE MHD OUTPUT ON THE ELECTRICAL SYSTEM. THESE EFFORTS ARE BEING SPONSORED BY EPRI. AVCO IS THE CONTRACTOR AND MONTANA POWER COMPANY'S WORK IS BEING COORDINATED BY MERDI. (THE INVERTER IS A DEVICE THAT CHANGES THE DIRECT CURRENT PRODUCED BY THE MHD CHANNEL INTO 60 CYCLE ALTERNATING CURRENT TO MATCH THE ELECTRIC UTILITY COMPANY SYSTEM.)

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00001406
PROJECT TITLE
1988 COAL-FIRED STEAM ELECTRIC STATION -- MONTANA SITING STUDY
INVESTIGATORS
DAN BERUBE
RESEARCH INSTITUTION
MONTANA POWER COMPANY / 40 EAST BROADWAY /
BUTTE, MT 59707 / (406)723-5421
PRIMARY SPONSOR
MONTANA POWER CO.
PRIMARY FUNDING AMOUNT
FY78 - $5,000; FY79 - $1,000,000
TIME FRAME
AUGUST, 1978 TO 1988
LOCATION
MT
ABSTRACT
MONTANA POWER HAS BEGUN TO CONDUCT SCREENING STUDIES TO TRY TO LOCATE AN ACCEPTABLE COAL-FIRED STEAM ELECTRIC STATION SITE IN THE STATE OF MONTANA. THIS PROJECT IS INTENDED TO BE THE FIRST STEP IN A PLAN TO MEET THE ENERGY REQUIREMENTS WHICH MONTANA POWER WILL NEED BEGINNING IN 1988.

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00001407
PROJECT TITLE
MILES CITY - *NEW UNDERWOOD TRANSMISSION STUDY*
INVESTIGATORS
STEVE FAUSETT
RESEARCH INSTITUTION
U. S. DEPT. OF ENERGY, WESTERN AREA POWER ADMIN. /

BILLINGS OFFICE / P. O. BOX EGY / BILLINGS, MT 59101 /
(406)657-6538
COOPERATOR
BASIN ELECTRIC POWER COOPERATIVE / MONTANA-DAKOTA UTILITIES
U. S. DEPT. OF ENERGY, WESTERN AREA POWER ADMIN.
TIME FRAME
OCTOBER, 1977 TO MAY, 1978
STATUS
COMPLETED MAY, 1978
LOCATION
MT., HETTINGER, ND, AND NEW UNDERWOOD, SD (IN MT -- CUSTER AND FALLON COS.; IN ND -- ADAMS, BOWMAN & SLOPE CUSTER AND FALLON COS.; IN ND--ADAMS, BOWMAN & SLOPE COS; IN SD - MEADE, PENNINGTON, AND PERKINS COS.)
ABSTRACT
THIS STUDY WAS CONDUCTED TO DETERMINE IF THE MILES CITY-NEW UNDERWOOD 230-KV LINE WOULD MEET TRANSMISSION REQUIREMENTS IN THE EASTERN MONTANA, WESTERN NORTH DAKOTA, AND WESTERN SOUTH DAKOTA AREAS. THE STUDY PERIOD CHOSEN FOR THE TECHNICAL STUDIES WAS THE 1982 PERIOD BASED ON THE ASSUMPTION THAT THIS WOULD BE THE EARLIEST POSSIBLE INSERVICE DATE FOR THE FACILITY AS WELL AS A CRITICAL POINT FOR LOADING ON THE EXISTING SYSTEM. THE LINE WOULD BE PART OF A TRANSMISSION SYSTEM WHICH DELIVERS ELECTRIC POWER AND ENERGY FROM EXISTING POWER-PLANTS IN THE MONTANA-NORTH DAKOTA AREA. THERE ARE NO THERMAL GENERATING STATIONS OR MAJOR ENERGY USING FACILITIES ASSOCIATED WITH THIS TRANSMISSION PROJECT.
STUDY AFFILIATION
THIS PROJECT IS RELATED TO 'MILES CITY-NEW UNDERWOOD 230-KV ELECTRICAL TRANSMISSION LINE - MT, ND, SD, (EIS),' ENERGY RESEARCH INFORMATION SYSTEM PROJECTS REPORT, VOL. 4, NO. 1, NO. 0000.
REPORTS AND PUBLICATIONS
MILES CITY - NEW UNDERWOOD TRANSMISSION STUDY, MAY 1978, VOLUME I - STUDY REPORT AND POWER FLOW CASES; VOLUME II - STABILITY CASES. STUDY JOINTLY CONDUCTED BY: WESTERN AREA POWER ADMINISTRATION, BASIN ELECTRIC POWER COOPERATIVE, AND MONTANA-DAKOTA UTILITIES CO. AVAILABLE FROM WESTERN AREA POWER ADMIN.

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00001408
PROJECT TITLE
AN ENVIRONMENTAL ASSESSMENT OF COAL TRANSPORTATION
PROJECT NUMBER
EPA-68-02-1321, TASK 40
INVESTIGATORS
MICHAEL F. SZABO /TIMOTHY DEVITT / JAMES BURKE /
CHARLES HEWITT / THOMAS JANZEN / EDWARD ZAWADSKI

RESEARCH INSTITUTION
PEDCO ENVIRONMENTAL, INC. / 11499 CHESTER ROAD / CINCINNATI, OH 45246 / 513 782-4700
PRIMARY SPONSOR
U. S. EPA, RESOURCE EXTRACTION & HANDLING DIV. / CINCINNATI, OH / JOHN MARTIN OFFICER
PRIMARY FUNDING AMOUNT
$49,300
TIME FRAME
FEBRUARY, 1976 TO DECEMBER, 1976.
STATUS
COMPLETED DECEMBER, 1976
LOCATION
CONTINENTAL UNITED STATES
ABSTRACT
THE PURPOSE OF THIS PROJECT WAS TO IDENTIFY THE POTENTIAL ENVIRONMENTAL IMPACTS ASSOCIATED WITH COAL TRANSPORTATION AND THE METHODS AVAILABLE OR POTENTIALLY FEASIBLE FOR CONTROLLING OR REDUCING THE IMPACTS. THE STUDY DEALT WITH: (1) PRIMARY AND SECONDARY ENVIRONMENTAL IMPACTS RESULTING FROM TRANSPORTATION OF COAL BY SLURRY PIPELINE, RAILROAD, BARGE, TRUCK, AND CONVEYOR; (2) COAL PREPARATION AND ASSOCIATED ACTIVITIES, SUCH AS LOADING AND UNLOADING; AND (3) ENERGY EFFICIENCIES OF THE TRANSPORT MODES.
REPORTS AND PUBLICATIONS
ENVIRONMENTAL ASSESSMENT OF COAL TRANSPORTATION, BY MICHAEL F. SZABO, PEDCO ENVIRONMENTAL, INC., CINCINNATI, OH 45246, CONTRACT NO. 68-02-1321, (EPA-600/7-78-081) MAY 1978.

*****

00001409
PROJECT TITLE
PROBLEM ANALYSIS IN TRANSPORTATION SYSTEMS
PROJECT NUMBER
A381-81
INVESTIGATORS
GLEN L. MARTIN
RESEARCH INSTITUTION
MONTANA STATE UNIV., DEPT. OF CIVIL ENGINEERING / BOZEMAN, MT 59715
COOPERATOR
U. S. FOREST SERVICE, INTERMTN. FOREST & RANGE EXP. STATION / BOX 1376 / BOZEMAN, MT 59715
PRIMARY SPONSOR
U. S. FOREST SERVICE, SURFACE ENVIRONMENT AND MINING / 145 GRAND / BILLINGS, MT. 59101
TIME FRAME
JUNE, 1974 TO APRIL 1975
STATUS
COMPLETED APRIL 1975
LOCATION
WESTERN UNITED STATES
ABSTRACT
AN ANALYSIS OF ENGINEERING RESEARCH PROBLEMS RELATED TO STABILITY AND RECLAMATION OF SURFACE MINE SPOILS IN THE WEST. FIVE BASIC AREAS OF ENGINEERING RESEARCH WERE CONSIDERED IN THIS REPORT: 1) PHYSICAL STABILIZATION OF EXISTING MINE SPOILS. 2) SPOIL PLACEMENT, SEQUENCING, SHAPING AND PREPARATION FOR REVEGETATION. 3) CONTROL OF SURFACE EROSION AND MASS SLOPE FAILURE. 4) SURFACE AND SUBSURFACE WATER DRAINAGE AND CONTROL. 5) ALTERATION AND IMPROVEMENT OF SPOIL MICRO-ENVIRONMENT AND SURFACE CONDITIONS.
REPORTS AND PUBLICATIONS
HARLOW, M. 'MINE RECLAMATION - A PROBLEM ANALYSIS FOR SEAM ENGINEERING RESEARCH.' APRIL 4, 1975. MONTANA STATE UNIV., DEPT. OF CIVIL ENGINEERING, BOZEMAN, MT. SCHEER, A. C. AND J. D. ARMIJO. TRANSPORTATION SYSTEM CHARACTERISTICS RELATED TO SURFACE ENVIRONMENT AND MINING CONSIDERATIONS. MONTANA STATE UNIVERSITY, DEPT. OF CIVIL ENGINEERING, BOZEMAN MT. AUGUST 1975. REICHMUTH, D. M., M. HARLOW AND A. EDWARDS. SEAM RECLAMATION PLANNING: A PRELIMINARY RESOURCES GEOMETRY MODEL AND A PROGRAM FOR MASS STABILITY ANALYSIS OF ALTERNATIVE RECLAMATION LANDSCAPES. JANUARY, 1976. MONTANA STATE UNIVERSITY, DEPT. OF CIVIL ENGINEERING, BOZEMAN, MT.

*****

00001410
PROJECT TITLE
AN ANALYSIS OF THE INTERACTIONS BETWEEN COAL DEVELOPMENT AND TRANSPORTATION ALTERNATIVES IN COLORADO
PROJECT NUMBER
PROJECT 311-02
INVESTIGATORS
JAMES W. ROSS / ALLEN RIES / JOE MEGEATH / CHARLIE CURLEE / WILLIAM WRIGHT
RESEARCH INSTITUTION
3R CORPORATION / 1221 SOUTH CLARKSON STREET, SUITE 410 / DENVER CO 80210 / 303 778-8780
PRIMARY SPONSOR
COLORADO ENERGY RESEARCH INSTITUTE / 2221 EAST STREET / GOLDEN, CO 80401 / 303 279-2881
PRIMARY FUNDING AMOUNT
$70,000
LOCATION
CO / MT / NM / OK / UT / WY
ABSTRACT
AN ANALYSIS OF THE INTERACTIONS BETWEEN COAL DEVELOP-

MENT AND TRANSPORTATION ALTERNATIVES IN COLORADO WAS PREPARED BY 3R CORPORATION UNDER A CONTRACT TO THE COLORADO ENERGY RESEARCH INSTITUTE. THE PURPOSE OF THE STUDY WAS TO DETERMINE THE RELATIONSHIPS BETWEEN POTENTIAL COAL SUPPLY, COAL DEMAND, AND COAL TRANSPORTATION MODES IN COLORADO THROUGH THE YEAR 2000. THIS RESEARCH EFFORT WAS UNDERTAKEN IN ORDER TO PROVIDE STATE POLICY MAKERS WITH CURRENT AND FUTURE COAL DEVELOPMENT AND TRANSPORTATION ALTERNATIVES IN THE FORM OF POLICY OPTIONS. THE NEED FOR THIS STUDY WAS IDENTIFIED INITIALLY BY THE STATE OF COLORADO'S LEGISLATIVE COUNCIL. THE LEGISLATIVE COUNCIL RECOGNIZED THAT RECENT NATIONAL EMPHASIS OF ENERGY CONVERSION AWAY FROM LESS PLENTIFUL FOSSIL FUELS COULD HAVE A SIGNIFICANT IMPACT ON WESTERN COAL PRODUCTION. THE LEGISLATIVE COUNCIL DETERMINED THAT ADDITIONAL RESEARCH WAS NECESSARY TO ASSESS POSSIBLE DETRIMENTAL ECONOMIC, SOCIAL, ENVIRONMENTAL, AND INSTITUTIONAL IMPACTS ON THE STATE OF COLORADO RESULTING FROM THIS INCREASED COAL PRODUCTION.

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00001411
PROJECT TITLE
OLD WEST REGION COAL LINKAGES STUDY
PROJECT NUMBER
WII3
INVESTIGATORS
JAMES R. MOORE / JACK TOMASIK / MICHAEL N. YORK
RESEARCH INSTITUTION
MOUNTAIN WEST RESEARCH, INC. / 512 N. 29TH ST. /
BILLINGS, MT 59101 / 406 259 8982
PRIMARY SPONSOR
OLD WEST REGIONAL COMMISSION / 201 MAIN STREET, SUITE D /
RAPID CITY, S. D. 57701 / 605 348-6310 / ROBERT DEMERSSEMAN
PRIMARY FUNDING AMOUNT
FY 79-$50,000; FY 80-$36,000; TOTAL $86,000
TIME FRAME
MAY, 1979 TO APRIL, 1980
LOCATION
MT / NE / ND / SD / WY
ABSTRACT

RECENT RAPID INCREASES IN COAL EXTRACTION, CONVERSION AND TRANSPORT IN THE OLD WEST REGION AND PROSPECTIVE FUTURE INCREASES HAVE CREATED A SIGNIFICANT NEW MARKET FOR GOODS AND SERVICES NEEDED IN BOTH THE CONSTRUCTION AND AND OPERATING PHASES OF THOSE INDUSTRIES. THIS MARKET REPRESENTS A SIGNIFICANT OPPORTUNITY FOR ECONOMIC DIVERSIFICATION WITHIN THE OLD WEST REGION.

THE GOALS OF THIS STUDY ARE TO: 1) GAIN A THOROUGH UNDERSTANDING OF BOTH THE COAL INDUSTRY AND THE INDUSTRIES THAT SUPPLY GOODS AND SERVICES TO IT; AND 2) FROM THIS UNDERSTANDING, IDENTIFY NEW INDUSTRIES OR ECONOMIC ACTIVITIES FOR WHICH FAVORABLE POTENTIAL BENEFITS EXIST FROM A LOCATION IN ONE OR MORE OF THE OLD WEST STATES.

1.7 MINING AND EXTRACTION METHODOLOGY

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00001412
PROJECT TITLE
FEASIBILITY STUDY FOR A SMALL DOMESTIC COAL MINE ON THE NORTHERN CHEYENNE RESERVATION
PROJECT NUMBER
(MT-P-016)
INVESTIGATORS
ALLEN ROWLAND, PRESIDENT
RESEARCH INSTITUTION
NORTHERN CHEYENNE TRIBE / P. O. BOX 128 / LAME DEER, MONTANA 59045
PRIMARY SPONSOR
NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY, BUTTE, MT
PRIMARY FUNDING AMOUNT
$1,200.00
TIME FRAME
NOVEMBER, 1977 TO MAY, 1978
STATUS
COMPLETED MAY, 1978
LOCATION
MT / NORTHERN CHEYENNE RESERVATION
ABSTRACT
THIS GRANT IS FOR A FEASIBILITY STUDY OF A SMALL-SCALE COAL MINE ON THE NORTHERN CHEYENNE RESERVATION IN MONTANA. THE COAL MINE WOULD BE OWNED AND OPERATED BY THE NORTHERN CHEYENNE TRIBE. ONE OBJECTIVE OF THE STUDY IS TO DETERMINE POTENTIAL SOURCES OF FUNDING FOR THE ACTUAL START-UP COSTS OF SUCH A MINE OPERATION.

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00001413
PROJECT TITLE
MINERAL MATTER IN WESTERN COAL
INVESTIGATORS
BOHOR, B. F.
RESEARCH INSTITUTION
U. S. GEOLOGICAL SURVEY, COAL RESOURCES BR. / BOX 25046, DENVER FEDERAL CENTER / DENVER, CO 80225
PRIMARY SPONSOR
U. S. GEOLOGICAL SURVEY, GEOLOGIC DIV.
PRIMARY FUNDING AMOUNT
FY 77-$47,000
TIME FRAME
OCTOBER 1976 TO SEPTEMBER 1978
LOCATION
WY / MT / CO / UT / NM / AZ
ABSTRACT
TONSTEIN AND OTHER PARTINGS FROM WESTERN COAL BEDS WILL BE COLLECTED AND CHARACTERIZED MINERALOGICALLY AND TEXTURALLY BY CHEMICAL ANALYSES, X-RAY DIFFRACTION, AND THE SCANNING ELECTRON MICROSCOPE. RADIOMETRIC AGES WILL BE MEASURED ON THE ZIRCON CONTENT OF SPECIFIC TONSTEIN SAMPLES BY MEANS OF THE FISSION TRACK METHOD. CORRELATION OF CERTAIN BEDS WILL BE MADE, WHERE APPLICABLE, BY MEANS OF THEIR CONTAINED TONSTEIN PARTINGS. THE MINERAL MATTER CONTENT OF WESTERN COALS WILL BE STUDIED BY LOW TEMPERATURE ASHING (IF THE USE OF AN ASHER CAN BE OBTAINED OR IF FUNDS BECOME AVAILABLE FOR PURCHASE). THIS LOW TEMPERATURE ASH WILL BE CHARACTERIZED MINERALOGICALLY BY X-RAY DIFFRACTION AND CHEMICAL ANALYSIS, AND AN ATTEMPT WILL BE MADE TO ASSIGN TRACE ELEMENTS TO SPECIFIC MINERAL PHASES.

*****

00001414
PROJECT TITLE
WILLISTON BASIN ENERGY LANDS
PROJECT NUMBER
9530-01933
INVESTIGATORS
TRIMBLE, D. E.
RESEARCH INSTITUTION
U. S. GEOLOGICAL SURVEY, BR. OF CENTRAL ENVIRON. GEOLOGY / BOX 25046, DENVER FEDERAL CENTER / DENVER, CO., 80225
PRIMARY SPONSOR
U. S. GEOLOGICAL SURVEY, GEOLOGIC DIV. / 12201 SUNRISE VALLEY DR. / RESTON, VA., 22092
TIME FRAME
OCTOBER, 1977 TO NOVEMBER, 1978
LOCATION
MT / ND
ABSTRACT

RECONNAISSANCE GEOLOGIC MAPPING FOR COMPLETION OF 1/2 X 1-DEGREE GEOLOGIC QUANDRANGLE MAPS AT SCALE 1:100,000 WILL CONTINUE IN FIVE QUADRANGLES IN EASTERN MONTANA. GEOLOGIC HAZARD MAPS SHOWING LANDSLIDE AND SUBSIDENCE AREAS IN THE SAME QUADRANGLES WILL BE MADE CONCURRENTLY. COMPILATIONS WILL BE COMPLETED FOR FOUR SUCH QUADRANGLES THAT WERE FIELD COMPLETED IN 1977, AND MAPS WILL BE SUBMITTED FOR PUBLICATION. A REPORT WILL BE PREPARED AND SUBMITTED FOR PUBLICATION TO MAKE AVAILABLE THE RESULTS OF A STUDY OF UNSTABLE GROUND HAZARDS IN WESTERN NORTH DAKOTA COMPLETED IN 1977.

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00001415
PROJECT TITLE
IDENTIFICATION AND MAPPING OF GEOLOGICAL HAZARDS IN WYOMING
PROJECT NUMBER
03.11
INVESTIGATORS
RODNEY H. DE BRUIN
RESEARCH INSTITUTION
WYOMING GEOLOGICAL SURVEY / BOBMBC9%VERSITY STATION / LARAMIE, WYOMING 82071 / (307)742-2054
COOPERATOR
WYOMING DEPT. OF ENVIRONMENTAL QUALITY / HAROLD ALLEN / HATHAWAY BUILDING / CHEYENNE, WY 82002 / (307)777-7394
PRIMARY SPONSOR
U. S. DEPT. OF INTERIOR, OFFICE OF SURFACE MINING
PRIMARY FUNDING AMOUNT
$40,450
TIME FRAME
MARCH, 1979 TO SEPTEMBER, 1979
LOCATION
WY
ABSTRACT

THE GEOLOGICAL SURVEY OF WYOMING IS CONDUCTING A RECONNAISSANCE STUDY TO IDENTIFY AND MAP GEOLOGICAL HAZARDS IN WYOMING. INFORMATION DERIVED FROM THIS STUDY WILL FORM A NUCLEUS FOR AN EXTENSIVE DATA BASE AND INVENTORY OF THESE TYPES OF HAZARDS. SUBJECT TO FUTURE FUNDING, THIS DATA BASE CAN BE EXPANDED. THE DATA BASE WILL PROVIDE INFORMATION RELEVANT TO THE DESIGNATION OF LANDS UNSUITABLE FOR SURFACE MINING DUE TO THE OCCURRENCE OF GEOLOGICAL HAZARDS.

THE INITIAL PHASE OF THE STUDY INVOLVES THE EXAMINATION OF AERIAL PHOTOGRAPHS AND ORTHOPHOTOQUADS FOR THE IDENTIFICATION OF AREAS CHARACTERIZED BY LANDSLIDES, CAVE-INS, SUBSIDENCE, AND LARGE OR ENCROACHING SAND DUNES. AREAS NEAR POTENTIALLY STRIPPABLE COAL THAT EXHIBIT SEISMIC ACTIVITY OR RECENT FAULTING WILL ALSO BE INVENTORIED.

IDENTIFIED GEOLOGICAL HAZARD AREAS TO ESTABLISH THEIR EXTENT AND VALIDITY.

THE THIRD PHASE OF THE STUDY IS THE TRANSFER OF GATHERED INFORMATION TO APPROPRIATE MAPS AND REPORTS WHICH WILL BE AVAILABLE TO THE PUBLIC.

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00001416
PROJECT TITLE
WESTERN ENERGY REGION - SOILS
PROJECT NUMBER
9760-01136
INVESTIGATORS
TIDBALL, R. R.
RESEARCH INSTITUTION
U. S. GEOLOGICAL SURVEY, GEOLOGIC DIV. / BOX 25046 / DENVER FEDERAL CENTER / DENVER, CO 80225
PRIMARY SPONSOR
U. S. GEOLOGICAL SURVEY, GEOLOGIC DIV. / 12201 SUNRISE VALLEY DR. / RESTON, VIRGINIA 22092
TIME FRAME
OCTOBER, 1977 TO NOVEMBER, 1978
LOCATION
RED DESERT BASIN / WASHAKIE / SASKATECHEWAN / ND / SD / MT / CO / UT / AZ / NM
ABSTRACT

RECONNAISSANCE GEOCHEMICAL SURVEY OF SOILS AND NATIVE VEGETATION WILL BE MADE IN THE GREEN RIVER, THE RED DESERT, AND THE WASHAKIE BASINS LOCATED IN OR ABOUT SWEETWATER COUNTY, WYOMING.

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00001417

PROJECT TITLE
DILLON 2 DEGREE QUADRANGLE, MONTANA-IDAHO
PROJECT NUMBER
9530-01557
INVESTIGATORS
RUPPEL, E. T.
RESEARCH INSTITUTION
U. S. GEOLOGICAL SURVEY, BR. OF CENTRAL ENVIRON.
GEOLOGY / BOX 25046, DENVER FEDERAL CENTER / DENVER, CO 80225
PRIMARY SPONSOR
U. S. GEOLOGICAL SURVEY, GEOLOGIC DIV. / 12201 SUNRISE
VALLEY DR. / RESTON, VA 22092
TIME FRAME
OCTOBER, 1977 TO SEPTEMBER, 1978
LOCATION
MT / ID
ABSTRACT

GEOLOGIC MAPPING IS TO BE CONTINUED FROM THE SALMON RIVER AND BEAVERHEAD MOUNTAINS EASTWARD INTO THE PIONEER MOUNTAINS OF MONTANA, AND IN CRYSTALLINE ROCKS OF THE RUBY AND TOBACCO ROOT MOUNTAINS. PRINCIPAL STUDIES WILL BE ON PRECAMBRIAN CRYSTALLINE ROCKS AND SEDIMENTARY ROCK SEQUENCES; THE RELATIONS OF OVERLAPPING THRUST SYSTEMS; THE RELATIONS OF DIFFERENT EPISODES OF HIGHER ANGLE FAULTING; ENERGY AND MINERAL RESOURCES; AND GEOLOGIC HAZARDS.

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00001418

PROJECT TITLE
GEOCHEMICAL SURVEY OF WESTERN ENERGY REGIONS - ROCKS
PROJECT NUMBER
9760-01135
INVESTIGATORS
HINKLEY, T.
RESEARCH INSTITUTION
U. S. GEOLOGICAL SURVEY, GEOLOGIC DIV. / BOX 25046/
DENVER FEDERAL CENTER / DENVEOR, CO 80225
PRIMARY SPONSOR
U. S. GEOLOGICAL SURVEY, GEOLOGIC DIV. / 12201 SUNRISE
VALLEY DR. / RESTON, VA 22092
TIME FRAME
OCTOBER, 1977 TO SEPTEMBER, 1978
LOCATION
NS / SD / WY / CO / UT / NM

ABSTRACT

TO PUBLISH RESULTS OF RECONNAISSANCE GEOCHEMICAL SURVEYS OF SHALES AND SANDSTONES OF THE FORT UNION FORMATION, SAMPLED BOTH IN OUTCROP AND DRILL CORE, IN THE NORTHERN GREAT PLAINS, AND ALSO, STREAM SEDIMENTS FROM THE SAME AREA. 2) TO BEGIN A GEOCHEMICAL SURVEY OF STREAM SEDIMENTS AND OF ROCKS OVERBURDEN TO COAL DEPOSITS IN THE SAN JUAN BASIN, AND 3) TO CONTINUE TO COLLECT CORED ROCKS OF CRETACEOUS AGE THAT ARE OVERBURDEN TO MINEABLE COAL DEPOSITS THROUGHOUT THE ROCKY MOUNTAIN REGION. OUR PRIMARY GOAL IN THIS WORK IS TO ASSESS THE MAGNITURE OF REGIONAL GEOCHEMICAL VARIATION IN ROCKS AND STREAM SEDIMENTS IN ORDER TO PROVIDE REALISTIC BASELINE DATA FROM THE PRESENT-DAY GEOCHEMICAL ENVIRONMENT.

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00001419

PROJECT TITLE
LANDFORM COMPUTER ASSISTED PLANNING AND DESIGN DEMONSTRATION
INVESTIGATORS
DAYTON NELSON / RICHARD MAHAN / THOMAS KING
DEVELOPMENTS. IT INVOLVES NEW METHODS OF COLLECTING
RESEARCH INSTITUTION
U. S. FOREST SERVICE, SURFACE ENVIRONMENT & MINING /
145 GRAND AVE. / BILLINGS, MONTANA 59102 / 657-6468
COOPERATOR
J. R. SIMPLOT CO. / ROBERT KIMBALL / POCATELLO,
IDAHO 83201 / (208)233-7500
C. FREDRICK HAGIUS / FEDERAL BUILDING / 150 SOUTH
ARTHUR / POCATELLO, IDAHO 83201
PRIMARY SPONSOR
U. S. FOREST SERVICE
PRIMARY FUNDING AMOUNT
FY77 - $70,000; FY78 - $100,000; FY79 - $120,000;
TOTAL: $290,000
TIME FRAME
SEPTEMBER, 1977 TO SEPTEMBER, 1979
STATUS
COMPLETED SEPTEMBER, 1979
LOCATION
GX
ABSTRACT

DEVELOP, ASSEMBLE AND DEMONSTRATE THE USE OF COMPUTER-AIDED SYSTEMS FOR PLANNING AND DESIGNING MINERALS TERRAIN DATA, SURFACE AND SUBSURFACE, AND PRODUCING AND DISPLAYING INFORMATION FROM THAT DATA SUCH AS CONTOUR PLOTS, PERSPECTIVE PLOTS, PROFILES, SLOPE AND ASPECT PLOTS, ETC. THIS INFORMATION IS THEN USED IN DESIGN TO ACTUALLY COMPUTE QUANTITIFS COSTS, ETC.

AND FINALLY TO USE THE DESIGN INFORMATION TO VISUALLY
DISPLAY THE PROPOSED DEVELOPMENT ON THREE DIMENSIONAL

PLOTS OR OBLIQUE PHOTOGRAPHS AS A MONTAGE TO SHOW WHAT
THE PROPOSAL WILL LOOK LIKE.

REPORTS AND PUBLICATIONS
LAND FORM SEAM 11/78. THIS REPORT IS AVAILABLE
FROM: SEAM (SURFACE ENVIRONMENT AND MINING) /
145 GRAND AVENUE / BILLINGS, MONTANA 59102

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00001420

PROJECT TITLE
A STUDY OF WESTERN COAL UNDER FEDERAL LEASE -- RESERVES
AND PRODUCTION

INVESTIGATORS
MONTE CANFIELD, JR., DIRECTOR

RESEARCH INSTITUTION
U. S. GENERAL ACCOUNTING OFFICE, ENERGY & MINERALS DIV. /
WASHINGTON, D. C. 20548

PRIMARY SPONSOR
U. S. GENERAL ACCOUNTING OFFICE, ENERGY & MINERALS DIV.

STATUS
COMPLETED JULY, 1978

LOCATION
WESTERN FEDERAL COAL LEASES (20 LEASEHOLDERS IN
12 WESTERN STATES)

ABSTRACT
THE PURPOSE OF THIS STUDY WAS TO REVIEW THE ACCURACY
OF COAL ESTIMATES UNDER FEDERAL LEASE AND INFORMATION
ON THE LEASEHOLDERS' PAST PRODUCTION ON FEDERAL LEASES
AND THEIR CURRENT PRODUCTION PLANS UNTIL THE YEAR 1985.
THE RESERVE ESTIMATES AND PRODUCTION PROJECTIONS OF
BOTH INTERIOR AND THE LEASEHOLDERS FOR THE TOP 20
FEDERAL COAL LEASEHOLDERS WERE REVIEWED. FOR THE 219
LEASES REVIEWED, GAO FOUND THAT USGS FAILED TO
ROUTINELY OBTAIN LEASEHOLDER RESERVE ESTIMATES AND TO
FOLLOW ESTABLISHED PROCEDURES FOR ESTIMATING RESERVES,
WITH THE RESULT THAT USGS AND LEASEHOLDER ESTIMATES
OF RECOVERABLE COAL DIFFERED BY 2.3 BILLION TONS.
DURING THE COURSE OF THE STUDY, THE GAO ALSO REVIEWED
LEGISLATION, REGULATIONS, POLICIES, PROCEDURES, AND
PRACTICES PERTAINING TO LEASING FEDERAL COAL ON PUBLIC
LANDS.

REPORTS AND PUBLICATIONS
INACCURATE ESTIMATES OF WESTERN COAL RESERVES SHOULD BE
CORRECTED (COMPTROLLER GENERAL, REPORT TO THE CONGRESS
OF THE UNITED STATES, U. S. GENERAL ACCOUNTING OFFICE,
JULY 11, 1978, EMD-78-32).
THIS STUDY WAS REQUESTED BY THE CHAIRMAN, SENATE COMMITTEE
ON ENERGY AND NATURAL RESOURCES, U. S. CONGRESS. THIS
DOCUMENT MAY BE OBTAINED FROM THE U. S. GENERAL ACCOUNTING
OFFICE, DISTRIBUTION SECTION, ROOM 1518, 441 G STREET, NW,
WASHINGTON, D. C. 20548. SINGLE COPIES ARE FREE OF
CHARGE.

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00001421

PROJECT TITLE
BOB MARSHALL WILDERNESS: A MINERAL RESOURCE EVALUATION
OF THE WILDERNESS AND ADJACENT STUDY AREAS

INVESTIGATORS
MELVILLE R. MUDGE / M.D. KLEINKOPF / R. L. EARHART /
L. Y. MARKS.

RESEARCH INSTITUTION
U. S. GEOLOGICAL SURVEY, GEOLOGIC DIV. / P. O. BOX 25046,
MS 905 / DENVER FEDERAL CENTER / DENVER CO 80225

STATUS
COMPLETED FEBRUARY, 1978

LOCATION
MT

ABSTRACT
A MINERAL RESOURCE INVESTIGATION OF THE BOB MARSHALL
WILDERNESS AND ADJACENT STUDY AREAS.

STUDY AFFILIATION
THIS IS A SUBPROJECT OF "MINERAL RESOURCES OF THE CHOTEAU
2 DEGREE QUADRANGLE, MONTANA", U. S. GEOLOGICAL SURVEY,
GEOLOGIC DIV., SERIAL NUMBER 00000836, ERIS PROJECTS REPORT
VOL. 2, NO. 2, APRIL 1977.

REPORTS AND PUBLICATIONS
PETROLEUM EVALUATION OF THE BOB MARSHALL WILDERNESS AND
ADJACENT STUDY AREAS, LEWIS AND CLARK, TETON, PONDERA,
FLATHEAD, LAKE, MISSOULA, AND POWELL COUNTIES, MT
U. S. G. S. OPEN FILE REPORT 77-542, 1977. AVAILABLE
FROM THE MONTANA BUREAU OF MINES AND GEOLOGY, MONTANA
COLLEGE OF MINERAL SCIENCE AND TECHNOLOGY, BUTTE, MT 59701,
AND U. S. CONSERVATION DIV., P. O. BOX 2550, BILLINGS,
MT 59103

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00001422

PROJECT TITLE
MEASUREMENT AND STIMULATION OF PHYSICAL TRANSFORMATION
OF OVERBURDEN MATERIALS WITH TIME

PROJECT NUMBER
C181-81

INVESTIGATORS
DR. DONALD REICHMUTH / A. D. SCHEER

RESEARCH INSTITUTION
MONTANA STATE UNIV., DEPT. OF CIVIL ENGINEERING / BOZEMAN
MT 59715

COOPERATOR
U. S. FOREST SERVICE, INTERMTN & RANGE EXP. STATION /

BOX 1376 / BOZEMAN, MT 59715 / R. R. BURROUGHS

PRIMARY SPONSOR
U. S. EPA

SECONDARY SPONSBR
U. S. FOREST SERVICE, SURFANCE ENVIRONMENT AND MINING /
145 GRAND / BILLINGS, MT 59101

TIME FRAME
FEBRUARY 1976 TO JUNE, 1978

LOCATION
WESTERN UNITED STATES

ABSTRACT
SURFACE MINING CAN CAUSE SIGNIFICANT CHANGES IN THE PHYSICAL PROPERTIES AND HYDROLOGIC FUNCTIONING OF OVERBURDEN MATERIALS. STUDY OBJECTIVES ARE TO: 1) DETERMINE WHAT DATA ARE NEEDED TO PREDICT THE PHYSICAL TRANSFORMATIONS OF OVERBURDEN MATERIALS THAT AFFECT HYDROLOGIC FUNCTIONING AND MASS STABILITY WITH TIME; 2) EVALUATE THE METHODS AND DEVELOP GUIDELINES FOR ACQUISITION OF THESE DATA; 3) DETERMINE THE MOST EFFICIENT TECHNIQUES FOR MEASURING AND FOR STIMULATING PHYSICAL TRANSFORMATIONS OVER TIME IN ORDER TO PREDICT THE RESULTING PHYSICAL AND HYDROLOGIC CHARACTERISTICS.

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00001423

PROJECT TITLE
SUBSIDENCE IN THE HANNA COAL FIELD

INVESTIGATORS
WILLIAM R. BERG

RESEARCH INSTITUTION
WYOMING GEOLOGICAL SURVEY / P. O. BOX 3008 / UNIVERSITY STATION, LARAMIE, WYOMING 82071 / 307 766-2286

PRIMARY SPONSOR
MINING & MINERAL RESOURCE RESEARCH INST. / BOX 3295, UNIVERSITY STATION / LARAMIE, WYOMING 82071 / GARY B. GLASS / 307 742-2045

SECONDARY SPONSBR
WYOMING GEOLOGICAL SURVEY

PRIMARY FUNDING AMOUNT
FY78 - $500.00; FY79 - $4500; TOTAL: $5000.00

SECONDARY FUNDING AMOUNT(S)
FY78 - $100.00; FY79 - $300.; TOTAL: $400.00

TIME FRAME
DECEMBER, 1978 TO SEPTEMBER, 1979

LOCATION
WY / CARBON COUNTY

ABSTRACT
THE STUDY DEALS WITH THE IDENTIFICATION, MAPPING, AND CHARACTERIZATION OF SUBSIDENCE AREAS IN AN UNDERGROUND COAL MINING DISTRICT IN WYOMING. SEVERAL TOWNS IN WYOMING ARE LOCATED OVER OR VERY NEAR UNDERGROUND COAL MINES. AS THE POPULATION OF THESE TOWNS INCREASES, IT BECOMES IMPERATIVE TO IDENTIFY AND MAP AREAS AT POTENTIAL SUBSIDENCE. EARLY IDENTIFICATION OF SUCH AREAS COULD PREVENT EXTENSIVE PROPERTY DAMAGE. IT IS NECESSARY TO RELATE DEPTH OF COAL, THICKNESS OF MINED OUT BEDS, MINING METHODS, THE NATURE OF OVERBURDEN, STRUCTURAL GEOLOGY, AND HYDROLOGY TO SUBSIDENCE. IT IS HOPED THAT BY RELATING THESE PARAMETERS TO SUBSIDENCE, GUIDELINES CAN BE WORKED OUT TO IDENTIFY POSSIBLE AREAS OF SUBSIDENCE. THE STUDY IS CONCERNED WITH SUBSIDENCE IN THE HANNA COAL FIELD WITH THE ANTICIPATION THAT THE RESULTS COULD BE APPLIED TO OTHER AREAS IN WYOMING WHERE SUBSIDENCE HAS OCCURRED ORIS LIKELY TO OCCUR.

00001424

PROJECT TITLE

TECHNOLOGY ASSESSMENT OF ALTERNATIVE TRANSPORTATION FUELS, PHASE I

PROJECT NUMBER

E(04-3)-1115

INVESTIGATORS

DICKSON, E. M.

RESEARCH INSTITUTION

STANFORD RESEARCH INSTITUTE / 333 RAVENSWOOD AVE. / MENLO PARK, CALIFORNIA, 94025

PRIMARY SPONSOR

U. S. DEPT. OF ENERGY, DIV. OF TRANSP. ENERGY CONS. / 20 MASSACHUSETTS AVE. N. W. / WASHINGTON, D. C., 20545

TIME FRAME

JUNE, 1974 TO MAY, 1978

LOCATION

GX

ABSTRACT

TECHNOLOGY ASSESSMENT: STANDARD SYSTEMS ANALYSIS TECHNIQUES, STAKEHOLDER ANALYSIS, CRITICAL IMPACTS AND, AIR QUALITY/DISPERSION MODELING, GROWTH (POPULATION) MODELING, SCENARIO CONSTRUCTION, CAPITAL FORMATION OF DISCOUNTED CASH FLOW ANALYSIS, NET ENERGY ANALYSIS, RESOURCE DEPLETION/COST ANALYSIS, ETC. KNOW CLEARLY WHAT RANGE OF IMPACTS CONSTRAIN DEVELOPMENT OF A SIGNIFICANT INDUSTRIAL CAPACITY FOR SYNFUELS IN THE 1900-2000 TIME FRAME. EVALUATE MITIGATION STRATEGIES IN TERMS OF MODIFYING RATES OF GROWTH, SCALES OF DEVELOPMENT, AND POTENTIAL SITING CONFIGURATIONS. EXAMINE IN DETAIL THE RESOURCE DEPLETION/COST RELATIONSHIPS TO DETERMINE LONG-TERM VIABILITY OF COAL AS A RESOURCE BASE FOR FUELS.

REPORTS AND PUBLICATIONS

(1) OCTOBER 1976 PHASE I FINAL REPORT: 'SYNTHETIC LIQUID FUELS DEVELOPMENT: ASSESSMENT OF CRITICAL FACTORS' / ERDA 76-129. (2) MAY 1977 PHASE II: (ERDA 76-129/3): "REGIONALIZED INDUSTRY SOCIAL IMPACT COAL RESOURCE DEPLETION" / (76-129/4): 'ENERGY/ECONOMIC COMPARISON OF COAL-BASED AUTOMOTIVE ENERGY SUPPLY SYSTEMS'. (3) DECEMBER 1975 "IMPACT OF ALTERNATIVE FUELS DEVELOPMENT - A TECNOLOGY ASSESSMENT".

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00001425

PROJECT TITLE

"STRUCTURAL GEOLOGY, STRATIGRAPHY AND ECONOMIC POTENTIAL OF THE NORTHERN SALT RIVER RANGE, WESTERN WYOMING OVERTHRUST BELT"

INVESTIGATORS

DAVID R. LAGESON

RESEARCH INSTITUTION

STATION / LARAMIE, WYOMING 82071 / (307)742-2054
STATION / LARAMIE, WYOMING 82071 / 307 742-2054

PRIMARY SPONSOR

WYOMING GEOLOGICAL SURVEY

PRIMARY FUNDING AMOUNT

FY78 - $7,500; FY79 - $7,500; TOTAL: $15,000

TIME FRAME

JUNE, 1977 TO JUNE, 1980

LOCATION

WY / LINCOLN COUNTY/ STEWART PEAK QUADRANGLE (T.35-36 N., R.118-119 W.)

ABSTRACT

THERE ARE THREE OBJECTIVES OF THIS PROJECT. THE FIRST OBJECTIVE IS TO DETERMINE GEOLOGIC STRUCTURE OF THE NORTHERN SALT RIVER RANGE (STEWART PEAK AREA). THRUST FAULTING IS SPATIALLY CONDENSED IN THIS PART OF THE WYOMING THRUST BELT, RESULTING IN VERY COMPLICATED STRUCTURE. IN ADDITION, NORMAL FAULTING HAS COMPLICATED THRUST SHEET RELATIONSHIPS.

THE SECOND OBJECTIVE INVOLVES DETAILED STRATIGRAPHIC STUDIES OF THE PALEOZOIC SUCCESSION. IN PARTICULAR, THE LOWER PALEOZOIC STRATA HAVE NOT PREVIOUSLY BEEN STUDIED. THESE STRATA ARE INTRICATELY FAULTED AND FOLDED, AND DETAILED STRATIGRAPHIC WORK WILL BE REQUIRED TO UNRAVEL THE STRUCTURAL RELATIONSHIPS.

THE THIRD OBJECTIVE IS TO DETERMINE RESOURCE POTENTIAL OF THE AREA, ESP. WITH REGARD TO PHOSPHATE ROCK AND PETROLEUM. PHOSPHATE ROCK OCCURS IN THE PERMIAN PHOSPHORIA FORMATION WHICH CROPS OUT IN LIMITED AREAS IN THE STEWART PEAK QUADRANGLE; DETAILED SURFACE MAPPING WILL DETERMINE THE EXTENT AND AMOUNT OF PHOSPHATE RESOURCE IN THE AREA. THE NORTHERN SALT RIVER RANGE IS ALSO FAVORABLY SITUATED WITH RESPECT TO POTENTIAL ACCUMULATIONS OF OIL AND/OR GAS; SUBSURFACE STRUCTURAL ANALYSIS WILL HELP TO DETERMINE THE POTENTIAL OF THIS RESOURCE.

REPORTS AND PUBLICATIONS

LAGESON, DAVID R., 1978, PETROGRAPHY OF SELECTED ROCK SAMPLES AND A DISCUSSION OF STRUCTURAL FABRIC, NORTHERN SALT RIVER RANGE, LINCOLN COUNTY, WYOMING: GEOL. SURVEY WYO. RRELIM. REPORT, NO. 17, 20P.
LAGESON, DAVID R., 1978, PRELIMINARY GEOLOGIC MAP OF THE STEWART PEAK QUADRANGLE, LINCOLN COUNTY, WYOMING: GEOL. SURVEY WYO. OPEN FILE REPORT, NO. 78-L.
THESE REPORTS ARE AVAILABLE FROM: GEOLOGICAL SURVEY OF WYOMING / P. O. BOX 3008, UNIVERSITY STATION / LARAMIE, WYOMING 82071 / $2.00

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00001426
PROJECT TITLE
DETERMINATION AND EVALUATION OF ENERGY UTILIZATION FOR ON-FARM USE IN PRODUCTION AGRICULTURE
PROJECT NUMBER
0070475; NEB-11-045
INVESTIGATORS
BASHFORD, L. L. / LANE, D. E.
RESEARCH INSTITUTION
UNIV. OF NEBRASKA, AGR. EXP. STATION, LINCOLN, NE 68508
PRIMARY SPONSOR
U. S. DEPT. OF AGRICULTURE, COOP. STATE RESEARCH SERVICE / WASHINGTON, D. C. 20250
TIME FRAME
OCTOBER, 1977 TO NOVEMBER, 1978
LOCATION
NE
ABSTRACT

OBJECTIVE: ESTABLISH THE FUEL REQUIREMENTS FOR ON-FARM USAGE IN PRODUCTION AGRICULTURE IN NEBRASKA. EVALUATE MODIFIED ON-FARM PRODUCTION SYSTEMS RELATIVE TO ENERGY USAGE. EVALUATE NEW APPROACHES TO CONSERVATION ENERGY PRACTICES.

APPROACH: FUEL REQUIREMENTS FOR ON-FARM PRODUCTION AGRICULTURE WILL BE MONITORED FOR VARIOUS PRODUCTION SYSTEMS IN THE STATE OF NEBRASKA. USING AN INSTRUMENTED TRACTOR, POWER REQUIREMENTS FOR VARIOUS MACHINERY SYSTEMS WILL BE DETERMINED IN NEBRASKA. AS EXISTING EQUIPMENT IS MODIFIED TO REDUCE POWER REQUIREMENTS OR AS NEW MACHINERY BECOMES AVAILABLE, THEIR POWER NEEDS WILL BE EVALUATED. FROM THIS, EVALUATION OF CONSERVATION SYSTEMS CAN BE MADE.

PROGRESS: FUEL USAGE FOR ON-FARM PRODUCTION HAS BEEN MEASURED ON OVER 100 FARMS IN NEBRASKA. DATA FOR APPROXIMATELY NINE MONTHS USAGE HAVE BEEN COMPUTED. THE DATA IS NOW BEING ANALYZED. THE ANALYSIS WILL ALLOW THE EXAMINATION OF FUEL REQUIREMENTS FOR ALL COMMODITIES UNDER INVESTIGATION RELATIVE TO THE FIELD OPERATIONS ASSOCIATED WITH THE PARTICULAR COMMODITY. THIS MONITORING OF FUEL USAGE WILL CONTINUE AT LEAST THROUGH THE SPRING OF 1977 TO ACQUIRE DATA RELATIVE TO THE SPRING TILLAGE OPERATIONS. INFORMATION IS PRESENTLY BEING ASSEMBLED FOR PUBLICATION IN THE FORM OF INFORMATION BULLETINS ON THE RELATIVE MERITS OF ENERGY CONSERVATION WITH SUGGESTIONS AS TO ACHIEVING THESE SAVINGS.

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00001427
PROJECT TITLE
ENERGY AND SOIL CONSERVATION TECHNIQUES FOR ESTABLISHMENT OF CROPS IN WYOMING
PROJECT NUMBER
0074179; WYO-146-078
INVESTIGATORS
BECKER, C. F. / FORNSTROM, K. J. / DELANEY, R.
RESEARCH INSTITUTION
UNIV. OF WYOMING, AG. EXP. STATION / P. O. BOX 3944, UNIVERSITY STATION / LARAMIE, WY 82071
PRIMARY SPONSOR
U. S. DEPT. OF AGRICULTURE, COOP. STATE RESEARCH SERVICE / WASHINGTON, D. C. 20250
TIME FRAME
OCTOBER, 1977 TO SEPTEMBER, 1978
LOCATION
WY
ABSTRACT

OBJECTIVE: DEVELOP PRACTICAL REDUCED ENERGY TILLAGE SYSTEMS FOR WYOMING CROPS.

APPROACH: TWO COMMERCIALLY AVAILABLE NO-TILL SEEDERS WILL BE USED TO RESEED MOUNTAIN MEADOWS. TEST PLOTS WITH VARIOUS PLANT SPECIES AND CHEMICAL TREATMENTS WILL BE ESTABLISHED. ENERGY REQUIREMENTS WILL BE MEASURED AND COMPARED WITH ENERGY REQUIREMENTS FOR CONVENTIONAL MEADOW RENOVATION. MINIMUM TILLAGE SMALL GRAIN DRILLING TECHNIQUES UTILIZING COMMERCIALLY AVAILABLE COMPONENTS WILL BE FIELD TESTED. CONTINUING PLOTS WILL BE ESTABLISHED TO COMPARE DRYLAND CROPPING PRACTICES FOR WHICH NO-TILL AND MINIMUM TILLAGE SEEDING WOULD BE APPLICABLE. ENERGY REQUIREMENTS WILL BE MEASURED IN EACH OF THE CROPPING PRACTICES. MINIMUM TILLAGE SYSTEMS FOR CORN AND SUGAR BEETS UTILIZING CONVENTIONAL PLANTING TECHNIQUES AND ADAPTED FOR FLOOD IRRIGATION WILL BE COMPARED WITH CONVENTIONAL PLOW BASED TILLAGE SYSTEMS.

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00001428
PROJECT TITLE
EFFECTS OF ATMOSPHERIC VARIABILITY ON ENERGY UTILIZATION AND CONSERVATION. FINAL REPORT.
PROJECT NUMBER
EY-76-S-02-1340

INVESTIGATORS

REITER, E. R. / DREISEITL, E. / JOHNSON, G. R. / LEONG, H. H. / MACDONALD, B. C.

RESEARCH INSTITUTION

COLORADO STATE UNIV., DEPT. OF ATMOSPHERIC SCI. / FT. COLLINS, CO

PRIMARY SPONSOR

U. S. DEPT. OF ENERGY

TIME FRAME

NOVEMBER, 1976 TO OCTOBER, 1977

LOCATION

CO / WY / CANADA

ABSTRACT

A SPACE-HEATING ENERGY-CONSUMPTION MODEL FOR GREELEY, COLORADO FOR THE WINTER OF 1976-77 WAS WITHIN 98.9 PERCENT OF ACTUAL NATURAL GAS CONSUMPTION FOR THAT CITY. MODELING OF CHEYENNE, WYOMING, INCLUDING THE TESTING OF A NEW STATISTICAL SCHEME TO DEVELOP THE BUILDING CENSUS REQUIRED BY THE ENERGY CONSUMPTION MODEL, HAS PROGRESSED TO THE POINT WHERE RELIABLE NATURAL GAS CONSUMPTION ESTIMATES CAN BE MADE WITH THE MODEL FOR THAT COMMUNITY. A DETAILED STUDY OF TEMPERATURE AND SURFACE WIND PATTERNS IN AND NEAR THE CITY OF GREELEY, COLORADO REVEALED THAT, AT TIMES, AN URBAN HEAT ISLAND EFFECT IS PRESENT, IN SPITE OF THE RELATIVELY SMALL SIZE OF THAT TOWN. VARIOUS FEEDBACK MECHANISMS BETWEEN THE OCEANS AND THE ATMOSPHERE WERE EXAMINED. SEVERAL OF THESE MECHANISMS APPEAR TO BE THE CAUSE OF THE INTERANNUAL VARIABILITY OF THE ATMOSPHERE'S GENERAL CIRCULATION AND OF CLIMATIC CHANGES ON A TIME SCALE OF SEVERAL TENS OF YEARS.

REPORTS AND PUBLICATIONS

THIS REPORT IS AVAILABLE FROM NTIS, SPRINGFIELD, VA.

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00001429

PROJECT TITLE

ENVIRONMENTAL ANALYSIS REPORT - OIL & GAS LEASING - GRASS CREEK PLANNING UNIT, WORLAND BLM DISTRICT, WYOMING

INVESTIGATORS

JOHN E. MOORHOUSE / JOHN A. KWIATKOWSKI / WILLIAM W. LE BARRON

RESEARCH INSTITUTION

U. S. BUREAU OF LAND MANAGEMENT / P. O. BOX 119 / WORLAND, WYOMING 82401 / (307)347-6151

PRIMARY SPONSOR

U. S. BUREAU OF LAND MANAGEMENT / JOHN A. KWIATKOWSKI / P. O. BOX 119 / WORLAND, WYOMING 82401 / (307)347-6151

PRIMARY FUNDING AMOUNT

FY76 - $20,000; FY77 - $5,000; TOTAL: $25,000

TIME FRAME

APRIL, 1976 TO MAY, 1977

LOCATION

WYOMING / HOT SPRINGS, WASHAKIE, BIG HORN, PARK, COUNTIES / WORLAND BLM DIST., GRASS CR. PLANNING UNIT

ABSTRACT

ANALYSIS OF THE ENVIRONMENTAL IMPACTS OF CONTINUING THE PRESENT PROGRAM OF LEASING NATIONAL RESOURCE LANDS FOR OIL AND GAS EXTRACTION. DEVELOPMENT OF STIPULATIONS TO MITIGATE ADVERSE IMPACTS AND ENHANCE BENEFICIAL IMPACTS. INCLUDES A DESCRIPTION OF THE EXISTING PROGRAM AND AN ASSUMPTION OF WHAT THE FUTURE PROGRAM WILL BE. THE EXISTING ENVIRONMENT AND ANTICIPATED IMPACTS, AND RECOMMENDATIONS FOR MITIGATING AND ENHANCING MEASURES.

REPORTS AND PUBLICATIONS

GRASS CREEK OIL AND GAS LEASING ENVIRONMENTAL ANALYSIS REPORT. THIS REPORT IS AVAILABLE FROM: DISTRICT MANAGER / U. S. BUREAU OF LAND MANAGEMENT / P. O. BOX 119 / WORLAND, WYOMING 82401

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00001430

PROJECT TITLE

MONTANA POWER CO. GAS FURNACE RETROFIT STUDY

INVESTIGATORS

PETER S. ANTONIOLI

RESEARCH INSTITUTION

THE MONTANA POWER CO. / 40 EAST BROADWAY /
BUTTE, MT 59707 / (406)723-5421

PRIMARY SPONSOR

MONTANA POWER CO.

PRIMARY FUNDING AMOUNT

FY79 - $1,000; TOTAL: $6,000

TIME FRAME

APRIL, 1979 TO APRIL, 1981

LOCATION

MT

ABSTRACT

RETROFIT OF EXISTING FURNACE INSTALLATION TO INCREASE SEASONAL OPERATING EFFICIENCIES. EXTENSIVE SAFETY EXAMINATIONS NEED TO BE DONE, HOWEVER, BEFORE FULL IMPLEMENTATION. THE PROJECT OBJECTIVES INCLUDE: (1) PILOT PROGRAM TO DEVELOP THE BEST PROCEDURES; (2) DERATING; (3) INTERMITTENT IGNITION DEVICES; AND (4) VENT DAMPERS.

REPORTS AND PUBLICATIONS

IN COOPERATION WITH A.G.A., TECHNIQUES DEVELOPED IN THE S.H.E.I.P. STUDY WILL BE EXAMINED TO ASCERTAIN THEIR APPLICABILITY TO THE CLIMATIC REGIONS OF MONTANA. A REPORT DETAILING THE FINDINGS WILL FOLLOW COMPLETION OF THE STUDY.

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00001431

PROJECT TITLE

A STUDY OF PETROLEUM SUPPLY ALTERNATIVES FOR THE NORTHERN TIER AND INLAND STATES THROUGH THE YEAR 2000

INVESTIGATORS

MARIO CARDULLO, PROJECT DIRECTOR

RESEARCH INSTITUTION

U. S. DEPT. OF ENERGY, OFFICE OF POLICY & EVALUATION /
WASHINGTON, D. C. 20545 / (202)376-4663

PRIMARY SPONSOR

U. S. DEPT. OF INTERIOR

PRIMARY FUNDING AMOUNT

$135,000

TIME FRAME

APRIL, 1978 TO JUNE, 1979

LOCATION

WA / OR / ID / MT / WY / ND / MN / WI / IL / IN / OH / MI

ABSTRACT

THIS STUDY HAS FOUR PRINCIPAL OBJECTIVES: (1) TO FORECAST DEMAND AND SUPPLY FOR CRUDE OIL AND REFINED PRODUCTS IN THE NORTHERN TIER AND INLAND STATES BETWEEN 1980 AND 2000; (2) TO EVALUATE THE TRANSPORTATION ALTERNATIVES PROPOSED TO MEET PETROLEUM DEMAND IN THE NORTHERN TIER; (3) TO ASSIST THE DEPARTMENT OF THE INTERIOR IN PREPARING THE ENVIRONMENTAL IMPACT STATEMENT FOR THE NORTHERN TIER PROPOSAL; AND (4) TO PROVIDE AN ANALYTICAL BASIS UPON WHICH THE PRESIDENT MAY SELECT A CRUDE OIL TRANSPORTATION PROJECT DEEMED TO BE IN THE NATIONAL INTEREST FOR EXPEDITED TREATMENT IN THE FEDERAL PERMITTING PROCESS.

REPORTS AND PUBLICATIONS

DRAFT REPORT - PETROLEUM SUPPLY ALTERNATIVES FOR THE NORTHERN TIER AND INLAND STATES THROUGH THE YEAR 2000. U. S. DEPT. OF ENERGY, ASSISTANT SECRETARY FOR POLICY AND EVALUATION, OFFICE OF POLICY ANALYSIS, FEBRUARY 21, 1979. VOLUME I - EXECUTIVE SUMMARY REPORT. VOLUME II - APPENDICES.

A LIMITED SUPPLY OF THE DRAFT REPORT IS AVAILABLE FROM THE DOE PRESSROOM IN THE FORRESTAL BUILDING (252-5575), FROM THE ECONOMIC REGULATORY ADMINISTRATION'S PUBLIC INFORMATION OFFICE AT 2000 M STREET, NW, (634-2170) AND FROM DOE REGIONAL OFFICES IN SEATTLE, CHICAGO, AND DENVER. A FINAL REPORT IS SCHEDULED TO BE PUBLISHED IN EARLY SUMMER, 1979.

.1 GENERAL

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0001433

ROJECT TITLE
ENERGY EFFICIENCY AND UTILIZATION IN AGRICULTURAL PRODUCTION

ROJECT NUMBER
0070992; SD00754

NVESTIGATORS
MELLICKSON, M. A. / YOUNG, H. G. / PETERSON, W. H.

ESEARCH INSTITUTION
SOUTH DAKOTA STATE UNIV. AGR. EXP. STATION / BROOKINGS, SD., 57006

RIMARY SPONSOR
SOUTH DAKOTA STATE GOVERNMENT / PIERRE, SD

IME FRAME
OCTOBER, 1977 TO NOVEMBER, 1978

OCATION
SO

BSTRACT

OBJECTIVE: EVALUATE SYSTEMS FOR MORE EFFICIENT USE OF ELECTRICITY, FOSSIL FUELS, AND OTHER ENERGY SOURCES FOR AGRICULTURAL PRODUCTION. DETERMINE THE ENERGY REQUIREMENTS FOR PERFORMING SELECTED AGRICULTURAL OPERATIONS IN SOUTH DAKOTA. INVESTIGATE METHODS OF SUBSTITUTING ENERGY SOURCES, SUCH AS, SOLAR AND WIND, FOR AGRICULTURAL SYSTEMS CURRENTLY USING CONVENTIONAL ENERGY SOURCES. STUDY THE EFFECTS OF MANAGEMENT AND CONTROL ON ENERGY USE FOR AGRICULTURAL PRODUCTION.

APPROACH: COLD AIR CROP DRYING AND SOLAR SUPPLEMENTED CROP DRYING STUDIES WILL BE CONDUCTED ON THE AGRICULTURAL ENGINEERING FARM. LOW TEMPERATURE, LOW COST SOLAR COLLECTORS WILL BE INVESTIGATED AS A SOURCE OF SUPPLEMENTAL HEAT FOR CONFINEMENT LIVESTOCK BUILDINGS. WORK WILL BE PERFORMED TO DEVELOP A MULTI-PURPOSE SOLAR-INTENSIFIER-THERMAL STORAGE SYSTEM FOR AGRICULTURAL USES.

PROGRESS: A COMPUTER SIMULATION MODEL, BASED ON REQUIRED VENTILATION RATES, BUILDING CHARACTERISTICS AND LIVESTOCK ENVIRONMENTAL CONSIDERATIONS, WAS DEVELOPED. FOR BROOKINGS, SOUTH DAKOTA CLIMATIC CONDITIONS AN OVERALL THERMAL RESISTANCE VALUE OF APPROXIMATELY 12 HR-FT F/BTU IS OPTIMUM AT CURRENT ENERGY AND INSULATION PRICES. DATA HAVE BEEN DEVELOPED ON ENERGY COSTS FOR TYPICAL MONTHS OF OPERATION AND FOR THE EFFECTS OF LIVESTOCK DENSITY AND ENVIRONMENTAL TEMPERATURE. A $45,001 RESEARCH GRANT WAS RECEIVED FROM ERDA TO STUDY A SOLAR ENERGY-INTENSIFIER-THERMAL STORAGE SYSTEM FOR DRYING AGRICULTURAL PRODUCTS AND FOR AGRICULTURAL SPACE HEATING. STUDIES OF SELECTED TYPE OF LOW COST, LOW TEMPERATURE RISE SOLAR COLLECTORS, MOUNTED ON THE SOUTHERN TWO-THIRDS OF CONVENTIONAL SHELLED CORN DRYING BINS, INDICATE THAT BARE COLLECTORS CAN BE AS EFFICIENT AS COVERED FLAT-PLATE COLLECTORS. ECONOMICS AND ENERGY SAVINGS HAVE BEEN NOTED FOR SOLAR SUPPLEMENTED VERSUS CONVENTIONAL LOW-TEMPERATURE CORN THREE GEOMETRIC CONFIGURATIONS OF LOW COST, LOW-TEMPERATURE RISE SOLAR COLLECTORS USED TO PROVIDE SUPPLEMENTAL HEAT FOR A CLOSED CONFINEMENT BEEF BUILDING.

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00001434

PROJECT TITLE
25-KILOWATT, PHOTOVOLTAIC-POWDERED, AGRICULTURAL EXPERIMENT AT MEAD, NEBRASKA

PROJECT NUMBER
EY-76-C-02-4094

INVESTIGATORS
MATLIN, R. W. / ROMAINE, W. R. / FISCHBACH, P. E.

RESEARCH INSTITUTION
M.I.T., LEXINGTON LINCOLN LAB /

PRIMARY SPONSOR
U. S. DEPT. OF ENERGY / WASHINGTON, D. C.

TIME FRAME
COMPLETED APRIL, 1978

LOCATION
NE

ABSTRACT

IN THE UNITED STATES, THE FIRST STEP TOWARD THE REALIZATION OF LARGE-SCALE AGRICULTURAL SYSTEMS UTILIZING PHOTOVOLTAICS WAS MADE DURING THE SUMMER OF 1977 BY THE CONSTRUCTION AND OPERATION OF AN EXPERIMENTAL UNIT GENERATING APPROXIMATELY 25-KW PEAK POWER. THIS EXPERIMENT WILL TEST THE APPLICATION OF SOLAR ENERGY TO A VARIETY OF AGRICULTURAL TASKS, INCLUDING IRRIGATION AND CROP DRYING. DURING THE PAST SUMMER, THIS UNIT POWERED A 10-HORSEPOWER PUMP THAT WAS INTERCONNECTED WITH AN AUTOMATIC GATED-PIPE IRRIGATION NETWORK AND A RESERVOIR OF TWO ACRE-FEET CAPACITY. IT WAS DESIGNED TO IRRIGATE 80 ACRES OF CORN, 12 HOURS A DAY AT THE RATE OF 1000 GALLONS A MINUTE. IN EARLY OCTOBER, AFTER THE END OF THE IRRIGATION SEASON, THE POWER WAS SWITCHED TO NEARBY CORN-DRYING BINS WHERE A FORCED-AIR DRYING TECHNIQUE IS BEING TESTED UTILIZING PHOTOVOLTAIC-POWERED CIRCULATION FANS. TWO GRAIN BINS, EACH WITH A 5-HORSEPOWER FAN, HAVE BEEN SET UP NEAR THE SOLAR COLLECTOR TO DRY THE CROP. ELECTRICITY GENERATED BY THE SOLAR UNIT IS USED TO POWER THE FAN FOR IN-BIN DRYING OF THE GRAIN.

REPORTS AND PUBLICATIONS
REPORTS AVAILABLE FROM NTIS, SPRINGFIELD, VA

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00001432
PROJECT TITLE
   TECHTONIC MAP OVERTHRUST BELT
INVESTIGATORS
   D. L. BLACKSTONE, JR.
RESEARCH INSTITUTION
   UNIV. OF WYOMING, DEPT. OF GEOLOGY / S. H. KNIGHT BLDG.
   ROOM 303 / LARAMIE, WY 82071 / 766-4138
PRIMARY SPONSOR
   WYOMING GEOLOGICAL SURVEY / ALAN VER PLCEG / BOX 3008 ,
   UNIVERSITY STATION / LARAMIE, WYOMING 82071 / 307/742-2054
PRIMARY FUNDING AMOUNT
   $2200.00
STATUS
   COMPLETED MARCH, 1979
LOCATION
   WY - UINTA, LINCOLN, SUBLETTE & TETON COUNTIES / UT -
   SUMMIT, RICH, MORGAN, WEBER, AND CACH'E COUNTIES / ID -
   BEAR LAKE, CARIBOU, BONNEVILLE, MADISON, AND TETON COUNTIES.
ABSTRACT
   THE TECTONIC MAP OF THE OVERTHRUST BELT WAS CONSTRUCTED TO
   DEPICT THE MAJOR FAULTS AND STRUCTURES PRESENT IN THIS
   IMPORTANT NEW OIL AND GAS PROVINCE.  PERTINENT INFORMATION
   RELATED TO THE OIL AND GAS DEVELOPMENT IS SHOWN - FOR
   EXAMPLE, ALL NEW OIL AND GAS FIELDS THROUGH MARCH OF 1979
   ARE PLOTTED ALONG WITH THE UNSUCCESSFUL EXPLORATORY TESTS
   DRILLED IN THE AREA.  THIS MAP REPRESENTS AN IMPORTANT NEW
   TOOL FOR THE STUDY OF THE OVERTHRUST BELT ON A REGIONAL BASIS,
   AS WELL AS, PROVIDING THE USER WITH AN INSIGHT INTO THE
   DRILLING HISTORY OF THE AREA.
   STRATION LABORATORY,' ERIS, VOL.4, NO.1, PROJECT NO. 0000    .
REPORTS AND PUBLICATIONS
   BLACKSTONE, JR., D. L.
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00001435
PROJECT TITLE
COLSTRIP ALTERNATIVE ENERGY STUDY
INVESTIGATORS
STEVE REYNOLDS / PETER ANTONIOLI
RESEARCH INSTITUTION
MONTANA POWER COMPANY / 40 EAST BROADWAY /
BUTTE, MT 59707 / (406)723-5421
PRIMARY SPONSOR
MONTANA POWER COMPANY
PRIMARY FUNDING AMOUNT
FY78 - $11,992; FY79 - $4,500
TIME FRAME
JUNE, 1977 TO CONTINUING
LOCATION
MT / COLSTRIP / ROSEBUD CO.
ABSTRACT
THIS PROJECT IS DESIGNED TO OBTAIN PEAK AND ENERGY DATA PERTAINING TO THE RESIDENTIAL USE OF NEW TYPES OF HEATING SYSTEMS AND THEIR IMPACT ON THE MONTANA POWER COMPANY SYSTEM. SPECIFICALLY, THESE PROJECTS INVOLVE THE MONITORING OF FOUR HOUSES IN THE COLSTRIP AREA. THE FOUR HOUSES INCLUDE: (1) ONE EQUIPPED WITH ELECTRIC RESISTANCE HEATING (CONTROL); (2) ONE EQUIPPED WITH A COMPLETE ACTIVE SOLAR SYSTEM; (3) ONE EQUIPPED WITH A CERAMIC HEAT STORAGE SYSTEM; (4) ONE EQUIPPED WITH A HEAT-PUMP SYSTEM. ALL FOUR HOUSES ARE OF SIMILAR DESIGN, CONSTRUCTION, AND FLOOR AREA.

3.2 SOLAR ENERGY

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00001436
PROJECT TITLE
MONTANA POWER CO. PASSIVE SOLAR HOUSE DESIGN STUDY
INVESTIGATORS
PETER S. ANTONIOLI
RESEARCH INSTITUTION
THE MONTANA POWER CO. / 40 EAST BROADWAY /
BUTTE, MT. 59707 / (406)723-5421
PRIMARY SPONSOR
MONTANA POWER CO.
PRIMARY FUNDING AMOUNT
$1,500
TIME FRAME
FEBRUARY, 1979 TO FEBRUARY, 1980
LOCATION
MT
ABSTRACT
EXAMINATION OF EXISTING PASSIVE SOLAR HOUSE DESIGNS TO DETERMINE A POSSIBLE ARCHITECTURAL MODEL SUITABLE FOR SITING IN MONTANA. PARTIAL FUNDING MAY BE SOUGHT FROM EITHER STATE OR FEDERAL AGENCIES OR FINANCED SOLELY WITH MONTANA POWER COMPANY FUNDS. AS PART OF THIS PLAN, FEASIBILITY OF UNDERGROUND HOUSING WILL ALSO BE INVESTIGATED.
REPORTS AND PUBLICATIONS
IT IS ANTICIPATED THAT UPON COMPLETION, A DESIGN WILL BE SELECTED THAT MAY BE FUNDED FOR CONSTRUCTION WITH/WITHOUT ASSISTANCE.

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00001437
PROJECT TITLE
OPTIMAL SOLAR RETROFITS FOR LOW-INCOME HOUSEHOLDS
PROJECT NUMBER
(MT-P-012)
INVESTIGATORS
KEN BOGGS
RESEARCH INSTITUTION
DISTRICT ELEVEN HUMAN RESOURCES COUNCIL / 207 E. MAIN /
MISSOULA, MONTANA 59801 / (406)728-3710
PRIMARY SPONSOR
NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY / BUTTE, MT
PRIMARY FUNDING AMOUNT
$13,900.00
TIME FRAME
DECEMBER, 1977 TO DECEMBER, 1978
STATUS
COMPLETED DECEMBER, 1978

LOCATION
MISSOULA / MONTANA
ABSTRACT
THE PURPOSE OF THIS GRANT IS TO CONSTRUCT A SOLAR HEATING SYSTEM, SOLAR HOT WATER SYSTEM, AND AN ATTACHED GREENHOUSE FOR A LOW-INCOME FAMILY HOME. THIS IS A DEMONSTRATION PROJECT WHICH WILL PROVIDE INFORMATION ON SOLAR SYSTEMS FOR LOW INCOME PEOPLE IN THE AREA.

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00001438
PROJECT TITLE
NORTHERN CHEYENNE SOLAR DEMONSTRATION PROJECT
PROJECT NUMBER
(MT-P-010)
INVESTIGATORS
VIRGINIA TOWES
RESEARCH INSTITUTION
NORTHERN CHEYENNE HOUSING AUTHORITY / P. O. BOX 327 /
LAME DEER, MT 59043 / (406)477-6419
PRIMARY SPONSOR
NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY / BUTTE, MT
PRIMARY FUNDING AMOUNT
$20,000.00
TIME FRAME
JANUARY, 1978 TO JANUARY, 1979
STATUS
COMPLETED JANUARY, 1979
LOCATION
MT / NORTHERN CHEYENNE INDIAN RESERVATION / LAME DEER
ABSTRACT
THIS GRANT WAS AWARDED TO THE NORTHERN CHEYENNE HOUSING AUTHORITY IN LAME DEER, MONTANA, TO DESIGN TWO ENERGY-EFFICIENT AND LOW-COST HOUSES WITH PASSIVE SOLAR SYSTEMS. THE RESERVATION HAS 2,616 PERSONS WITH A HOUSING SHORTAGE AND HIGH ENERGY COSTS AND UNEMPLOYMENT RATES. THIS PROJECT WILL HELP TRAIN INDIAN WORKERS TO BUILD THEIR OWN SOLAR EQUIPMENT. THE U. S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT WILL PAY THE COSTS OF ALL BUILDING.

3.3 WIND ENERGY

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00001439
PROJECT TITLE
WIND ENERGY FOR AGRICULTURAL APPLICATIONS
PROJECT NUMBER
0073856; SD00796
INVESTIGATORS
VERMA, L. R. / HELLICKSON, M. A. / YOUNG, H. G.
RESEARCH INSTITUTION
SOUTH DAKOTA STATE UNIV., AG. EXP. STATION /
BROOKINGS, S. D., 57006
PRIMARY SPONSOR
U. S. DEPT. OF AGRICULTURE, COOP. STATE RESEARCH SERVICE /
WASHINGTON, D. C., 20250
TIME FRAME
OCTOBER, 1977 TO SEPTEMBER, 1978
LOCATION
SD
ABSTRACT
OBJECTIVE: CALCULATE THE WIND ENERGY AVAILABLE AT SELECTED SITES IN SD. STUDY THE INTENSITY AND VARIATION IN THIS ENERGY ON A DAILY AND MONTHLY BASIS. STUDY THE RELATIVE POTENTIAL OF WIND ENERGY AS COMPARED TO OTHER ALTERNATE ENERGY SOURCES. EVALUATE THE COMBINED POTENTIAL OF WIND AND SOLAR ENERGIES AT SELECTED SITES IN SOUTH DAKOTA. INVESTIGATE THE POTENTIAL OF WIND ENERGY FOR AGRICULTURAL APPLICATIONS.
APPROACH: THE MAIN THRUST WILL BE TOWARD THE FEASIBILITY OF WIND ENERGY USE FOR AGRICULTURAL APPLICATION, SUCH AS, CROP DRYING, GRAIN DRYING, AND SPACE HEATING. EXISTING CLIMATOLOGICAL DATA AT VARIOUS LOCATIONS IN SD WILL BE EVALUATED FOR WIND ENERGY POTENTIAL; INCLUDING WIND VARIATION STUDIES. SOME SPECIFIC ANALYSIS WILL BE MADE ON THE AVAILABILITY OF WIND POWER FROM DATA. THE TOTAL WIND ENERGY FLUX PASSING UNIT AREA FOR EACH MONTH OF THE YEAR, AVERAGE DAILY WIND ENERGY FLUX, THE DISTRIBUTION IN TIME OF THE AVAILABLE WIND ENERGY, NUMBER OF HOURS PER MONTH WITH WIND SPEEDS ADEQUATE FOR EFFECTIVE WIND ENERGY CONVERSION, DETAILS ABOUT THE INCIDENCE AND DURATION OF CALM PERIODS. RESULTS OBTAINED TO BE USED IN COMBINATION WITH AVAILABLE SOLAR ENERGY INFORMATION TO EVALUATE THE COMBINED POTENTIAL OF WIND AND SOLAR ENERGIES IN SD.

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00001440
PROJECT TITLE
EVALUATION OF A WIND ENERGY CONVERSION SYSTEM FOR AGRICULTURAL APPLICATION

PROJECT NUMBER

0073627: WYO-148-078

INVESTIGATORS

PECKER, C. F. / SMITH, D. / HADLOFF, H. D.

RESEARCH INSTITUTION

UNIV. OF WYOMING, AGR. EXP. STATION / P. O. BOX 3944,
UNIVERSITY STATION / LARAMIE, WYOMING, 82071

PRIMARY SPONSOR

U. S. DEPT. OF AGRICULTURE, COOP. STATE RESEARCH SERVICE /
WASHINGTON, D. C., 20250

TIME FRAME

OCTOBER, 1977 TO SEPTEMBER, 1978

LOCATION

WY

ABSTRACT

OBJECTIVE: SECURE METEROLOGICAL DATA AND CORRELATE WITH PERFORMANCE OF A WIND ENERGY CONVERSION SYSTEM (WECS) AS RELATED TO AGRICULTURAL FARMSTEAD ELECTRICAL ENERGY NEEDS.

APPROACH: A COMPUTER DIRECT DIGITAL DATA ACQUISITION SYSTEM TO MONITOR WIND SPEED AND DIRECTION, OTHER METEOROLOGICAL DATA, ELECTRICAL CONSUMPTION USED FOR WATER HEATING, HOME USE, FEED GRINDING AND OTHER USES AT THE UNIVERSITY OF WYOMING DAIRY FARM WILL BE CONSTRUCTED TO RECORD THE DATA ON MAGNETIC TAPE AND DISPLAY THE INFORMATION IN REAL TIME FOR DECISION MAKING AND CONTROL. INFORMATION ON ENERGY RECEIVED FROM AND SUPPLIED TO THE UTILITY ENERGY GRID WILL ALSO BE SECURED. ENERGY REQUIREMENTS FOR VARIOUS APPLICATIONS AND PERFORMANCE OF THE WECS WILL BE CORRELATED WITH METEOROLOGICAL PARAMETERS.

3.4 GEOTHERMAL ENERGY

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00001441

PROJECT TITLE

SITE SPECIFIC ANALYSIS OF GEOTHERMAL DEVELOPMENT-DATA FILES OF PROSPECTIVE SITES, VOLUME II

PROJECT NUMBER

EG-77-C-01-4014

INVESTIGATORS

TREHAN, R. / COHEN, A. / GUPTA, J. / JACOBSEN, W. /
LEIGH, J.

RESEARCH INSTITUTION

U. S. DEPT. OF ENERGY, DIV. OF GEOTHERMAL ENERGY /
WASHINGTON, D. C.

PRIMARY SPONSOR

U. S. DEPT. OF ENERGY / WASHINGTON, D. C.

TIME FRAME

COMPLETED AUGUST, 1978

LOCATION

MT / NV / NM / ID / OR / TX / UT / AZ / CA

ABSTRACT

DEVELOPMENT SCENARIOS FOR 37 HYDROTHERMAL AND GEO-PRESSURED PROSPECTS IN THE UNITED STATES WERE ANALYZED TO ASSIST DOE'S DIVISION OF GEOTHERMAL ENERGY IN MISSION-ORIENTED PLANNING OF GEOTHERMAL RESOURCE DEVELOPMENT. THIS SECOND VOLUME OF THE THREE-VOLUME SERIES CONTAINS THE DETAILED SITE-SPECIFIC ANALYSES IN TERMS OF TECHNOLOGICAL, ECONOMIC, AND OTHER REQUIREMENTS FOR MEETING THE POSTULATED SCHEDULES. THIS PRESENTATION SHOULD BE USED IN CONJUNCTION WITH VOLUME III WHICH CONTAINS DETAILED DESCRIPTIVE DATA FILES FOR EACH OF THE 37 PROSPECTS. THESE DATA FILES WERE USED FOR THE ANALYSES CONTAINED IN VOLUME II AND SHOULD BE USEFUL FOR OTHER GEOTHERMAL RESOURCE STUDIES. (ERA CITATION 04:002980)

STUDY AFFILIATION

THIS REPORT IS RELATED TO ENERGY RESEARCH INFORMATION SYSTEM PROJECT REPORT NO. 00001442 , VOLUME 4, NO. 1.

REPORTS AND PUBLICATIONS

REPORTS AVAILABLE FROM NTIS, SPRINGFIELD, VA

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00001442

PROJECT TITLE

SITE-SPECIFIC ANALYSIS OF GEOTHERMAL DEVELOPMENT-DATA FILES OF PROSPECTIVE SITES, VOL. III

PROJECT NUMBER

EG-77-C-01-4014

INVESTIGATORS

WILLIAMS, F. / COHEN, A. / PFUNDSTEIN, R. /

POND, S.

RESEARCH INSTITUTION

MITRE CORP. / MCLEAN, VA.

PRIMARY SPONSOR

U. S. DEPT. OF ENERGY / WASHINGTON, D. C.

TIME FRAME

COMPLETED FEBRUARY, 1978

LOCATION

AZ / CA / HI / ID / LA / MT / NV / NM / OR / TX / UT / WA

ABSTRACT

DEVELOPMENT SCENARIOS FOR 37 HYDROTHERMAL AND GEOPRESSURED PROSPECTS IN THE UNITED STATES WERE ANALYZED. THIS THIRD OF THREE VOLUMES PRESENTS SITE-SPECIFIC DATA AND SAMPLE DEVELOPMENT SCHEDULES FOR THE FIRST PLANT ON LINE AT EACH OF THE 37 PROSPECTS. (ERA CITATION 03:047245)

STUDY AFFILIATION

THIS REPORT IS RELATED TO ENERGY RESEARCH INFORMATION PROJECT REPORT NO. 0000*1441* , VOLUME 4, NO. 1.

REPORTS AND PUBLICATIONS

REPORT IS AVAILABLE FROM NTIS, SPRINGFIELD, VA.

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00001443

PROJECT NUMBER

IGCC-3

RESEARCH INSTITUTION

U. S. DEPT. OF ENERGY, DIV. OF GEOTHERMAL ENERGY / WASHINGTON, D. C.

PRIMARY SPONSOR

U. S. DEPT. OF ENERGY

TIME FRAME

COMPLETED APRIL, 1978

LOCATION

AK /AZ /CA / CO / HI / ID / LA / MT / NV / OR / TX / UT / WY

ABSTRACT

THE DISCUSSION IS PRESENTET UNDER THE FOLLOWING SECTION HEADINGS: EXECUTIVE SUMMARY; NATIONAL GEOTHERMAL UTILIZATION ESTIMATES: FEDERAL GEOTHERMAL ENERGY PROGRAM OBJECTIVE; FEDERAL GEOTHERMAL ENERGY STRATEGY; FEDERAL PROGRAM PLANNING, IMPLEMENTATION, AND PROGRESS MONITORING; ORGANIZATION OG THE REPORT; NATIONAL PROGRESS AND ACHIEVEMENTS; REGIONAL PROGRESS AND ACCOMPLISHMENTS; FISCAL YEAR 1978 ACTIVITIES; FEDERAL PROGRAM ACTIVITIES IN FISCAL YEAR 1979 AND BEYOND; APPENDIX A--INTERAGENCY COORDINATION AND PROGRAM MANAGEMENT INTERAGENCY GEOTHERMAL COORDINATING COUNCIL (IGCC): AND APPENDIX B--INTERNATIONAL ACTIVITIES. (ERA CITATION 04:005633)

REPORTS AND PUBLICATIONS

REPORT IS AVAILABLE FROM NTIS, SPRINGFIELD, VA.

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00001444

PROJECT TITLE

WARM SPRINGS GEOTHERMAL DEMONSTRATION PROJECT

INVESTIGATORS

GENE MCLEOD / KAREN BARCLAY

RESEARCH INSTITUTION

MONTANA ENERGY & MHD RESEARCH & DEVELOPMENT INST. / P. O. BOX 3809 / BUTTE, MONTANA 59701 / (406)494-6100

PRIMARY SPONSOR

U. S. DEPT. OF ENERGY

SECONDARY SPONSOR

MONTANA DEPT. OF NATURAL RESOURCES & CONSERVATION

PRIMARY FUNDING AMOUNT

$600,000

TIME FRAME

FEBRUARY, 1979 TO JANUARY, 1981

LOCATION

MT / DEER LODGE COUNTY / WARM SPRINGS STATE HOSPITAL

ABSTRACT

THIS PROJECT'S OBJECTIVE IS TO UTILIZE THE GEOTHERMAL RESOURCE AT WARM SPRINGS STATE HOSPITAL FOR DOMESTIC HOT WATER HEATING AND A PORTION OF WARM SPRINGS STATE HOSPITAL'S HEATING REQUIREMENTS.

00001445

PROJECT TITLE

HYDROELECTRIC POTENTIAL IN MONTANA

INVESTIGATORS

BOB PERIMAN

RESEARCH INSTITUTION

MONTANA POWER COMPANY / 40 EAST BROADWAY /
BUTTE, MT 59707 / (406)723-5421

COOPERATOR

EBASCO SERVICES / BECHTEL CORP.

PRIMARY SPONSOR

MONTANA POWER CO.

PRIMARY FUNDING AMOUNT

FY78 - $100,000; FY79 - $100,000; TOTAL: $200,000

TIME FRAME

AUGUST, 1978 TO MAY, 1980

LOCATION

MT

ABSTRACT

MONTANA POWER COMPANY HAS BEGUN A STUDY WITH A CONSULTANT TO RE-EXAMINE THE UNDEVELOPED HYDROELECTRIC POTENTIAL IN ITS SERVICE AREA IN THE LIGHT OF TODAY'S ECONOMICS, ENVIRONMENTAL AND POLITICAL RESTRAINTS.
IN ADDITION, MONTANA POWER HAS BEGUN A STUDY TO RE-EXAMINE EXISTING HYDROELECTRIC SITES TO DETERMINE IF FURTHER HYDRO-ELECTRIC ENERGY COULD BE DEVELOPED ECONOMICALLY.

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00001446

PROJECT TITLE

MISSOURI RIVER, SOUTH DAKOTA, NEBRASKA, NORTH DAKOTA, MONTANA (UMBRELLA STUDY) REVIEW REPORT FOR WATER RESOURCES DEVELOPMENT

INVESTIGATORS

RALPH ROZA / KITTY LOOPER

RESEARCH INSTITUTION

U. S. CORPS OF ENGINEERS, OMAHA DISTRICT / 6014 U. S. POST
OFFICE AND COURTHOUSE / OMAHA, NE 68102 / 402 221-4579

PRIMARY SPONSOR

U. S. CORPS OF ENGINEERS

PRIMARY FUNDING AMOUNT

FY79 - $255 FY80 - $500 - TOTAL UNKNOWN

TIME FRAME

CONTINUING TO 1982

LOCATION

SD / NE / ND / MT / MISSOURI RIVER

ABSTRACT

THE OMAHA DISTRICTOF THE CORPS OF ENGINEERS HAS INITIATED THE RESUMPTION OF THE HYDROPOWER PORTION OF THE MISSOURI RIVER, SOUTH DAKOTA, NEBRASKA, NORTH DAKOTA, AND MONTANA STUDY (UPPER MISSOURI RIVER UMBRELLA STUDY). THE UPPER MISSOURI RIVER UMBRELLA STUDY INVESTIGATED A WIDE RANGE OF WATER RESOURCE PROBLEMS AND OPPORTUNITIES ON THE MISSOURI RIVER. THE REVIEW REPORT ON THE UMBRELLA STUDY WHICH IS NOW UNDER REVIEW AT THE OFFICE, CHIEF OF ENGINEERS, RECOMMENDED AUTHORIZATION FOR PHASE 1 ADVANCED ENGINEERING AND DESIGN STUDIES FOR (1) ADDITIONAL HYDROPOWER GENERATING UNITS AND REREGULATION DAMS AT GARRISON DAM IN NORTH DAKOTA AND FORT PECK DAM IN MONTANA, (2) A PUMPED-STORAGE HYDROELECTRIC GENERATING FACILITY ADJACENT TO LAKE FRANCIS CASE IN GREGORY COUNTY, SOUTH DAKOTA, (3) BANK STABILIZATION AT 30 AREAS OF ACTIVE EROSION BETWEEN FORT PECK DAM AND PONCA, NEBRASKA, (4) FISH REARING PONDS AT 12 SITES AT LAKE OAHE AND LAKE FRANCIS CASE, AND (5) DESIGNATION OF A 59-MILE REACH OF THE MISSOURI RIVER BETWEEN GAVINS POINT DAM AND PONCA, NEBRASKA AS A NATIONAL RECREATION RIVER. BASED ON THE REVIEW AND RECOMMENDATIONS OF THE BOARD OF ENGINEERS FOR RIVERS AND HARBORS THE REPORT NO LONGER CONTAINS SPECIFIC RECOMMENDATIONS FOR BANK STABILIZATION MEASURES. ALSO, PUBLIC LAW 95-625 WAS RECENTLY ENACTED WHICH DESIGNATED THE MISSOURI RIVER FROM GAVINS POINT DAM TO PONCA, NEBRASKA AS A NATIONAL RECREATION RIVER; THEREFORE, THE REPORT OF THE CHIEF OF ENGINEERS TO CONGRESS WILL NOT CONTAIN A RECOMMENDATION FOR THE RECREATION RIVER DESIGNATION. THE REPORT DEFERRED FURTHER CONSIDERATION OF OTHER ADDITIONAL HYDROPOWER OPPORTUNITIES AT THE MAIN STEM RESERVOIRS ON THE MISSOURI RIVER. OUR STUDY RESUMPTION IS REFERRED TO AS "MISSOURI RIVER, SOUTH DAKOTA, NEBRASKA, NORTH DAKOTA, AND MONTANA (ADDITIONAL HYDROPOWER)." THE STUDY WILL BE CONDUCTED OVER A FOUR-YEAR PERIOD AND WILL FOCUS ON THE FUTURE NEED AND FEASIBILITY OF ADDITIONAL HYDROELECTRIC DEVELOPMENT INCLUDING PUMPED-STORAGE HYDROPOWER ADJACENT TO THE MAIN STEM RESERVOIRS.

STUDY AFFILIATION

THIS PROJECT IS RELATED TO 'REVIEW REPORT: MISSOURI RIVER - NORTH DAKOTA, SOUTH DAKOTA, NEBRASKA, AND MONTANA.' ENERGY RESEARCH INFORMATION SYSTEM, VOL. 2, NO. 1, PROJECT NO. 00000715, JANUARY, 1977.

REPORTS AND PUBLICATIONS

ENVIRONMENTAL IMPACT STATEMENT. MISSOURI RIVER-SOUTH DAKOTA, NEBRASKA, NORTH DAKOTA, MONTANA VOL. 1-3 AUG. 1977. ARMY CORP OF ENGINEERS OMAHA DISTRICT. DEPT. OF THE ARMY, OMAHA DISTRICT, CORPS OF ENGINEERS / 6014 U. S. POST OFFICE AND COURTHOUSE / OMAHA, NEBRASKA 68102.

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00001447
PROJECT TITLE

NATIONAL HYDROPOWER STUDY SECTION 167 WATER RESOURCES DEVELOPMENT ACT OF 1976

INVESTIGATORS
JAMES F. HANCHEY
RESEARCH INSTITUTION
U. S. CORPS OF ENGINEERS, INSTITUTE FOR WATER RESOURCES / KINGMAN BUILDING / FT. BELVOIR, VA 22060 / 202 325-7023
PRIMARY SPONSOR
U. S. CONGRESS
PRIMARY FUNDING AMOUNT
FY 78-$934,000; FY 79-$2,316,000; FY 80-$2,9000,000; FY 81-$850,000(EST); TOTAL:$7,000,000(EST)
TIME FRAME
JULY, 1977 TO AUGUST, 1981
LOCATION
THE 50 UNITED STATES AND PUERTO RICO
ABSTRACT
STUDY OBJECTIVE IS TO COMPLY WITH 9 PROVISIONS OF SEC. 167, PL 94-587, VIZ. TO STUDY: (1) THE PHYSICAL POTENTIAL FOR HYDROELECTRIC DEVELOPMENT; (2) THE MAGNITUDE AND REGIONAL DISTRIBUTION OF NEED FOR HYDROPOWER; (3) INTEGRATION OF HYDRO AND OTHER FORMS OF GENERATION; (4) MEASURES TO ASSURE THAT HYDRO WILL BE EFFICIENT IN MEETING NATIONAL ENERGY DEMANDS; (5) TIMING OF HYDRO TO COINCIDE WITH CHANGES IN DEMAND; (6) CONVENTIONAL HYDRO POTENTIAL, POSSIBLE ADVANCES IN TECHNOLOGY, AND PUMPED STORAGE POTENTIAL; (7) FEASIBILITY OF ADDING OR REALLOCATING STORAGE AND MODIFYING OPERATING RULES OR CORPS PROJECTS WITH POWER; (8) MEASURES TO INSURE THAT POTENTIAL CONTRIBUTIONS OF HYDRO ARE REALIZED TO THE MAXIMUM; (9) OTHER PERTINENT FACTORS NECESSARY.
REPORTS AND PUBLICATIONS
PUBLIC INFORMATION FILE ON PRELIMINARY SCREENING OF HYDROPOWER SITES LARGER THAN 50 KW. JUNE, 1979. THIS FILE IS AVAILABLE FROM: BARRY G. ROUGHT, PE / CHIEF, PLANNING DIV., SOUTHWESTERN DIV., CORPS OF ENGINEERS / 1200 MAIN ST. / DALLAS, TX 75202

3.6 OTHER

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00001448
PROJECT TITLE
EVALUATION OF THE USE OF AGRICULTURAL RESIDUES AS AN ENERGY FEEDSTOCK: A TEN SITE SURVEY, VOLUME II, STUDY AREA ANALYSIS
PROJECT NUMBER
EY-76-C-03-0115
INVESTIGATORS
ALICH, J. A., JR. / SCHOOLEY, F. A. / ERNEST, R. K. / HAMILTON, R. / LOUKS, B. M.
RESEARCH INSTITUTION
STANFORD RESEARCH INSTITUTE
PRIMARY SPONSOR
U. S. DEPT. OF ENERGY / WASHINGTON, D. C.
TIME FRAME
COMPLETED JANUARY, 1978
LOCATION
CA / CO / DL / FL / IL / ME / MI / ND / TX
ABSTRACT
THE RESULTS OF A STUDY OF THE FEASIBILITY OF CONVERTING AGRICULTURAL RESIDUES TO PRODUCE ENERGY ARE PRESENTED. RESULTS OF ON-SITE SURVEYS OF TEN STUDY AREAS SELECTED FOR ANALYSIS ON THE BASIS OF A PREVIOUS SRI COUNTY-BY-COUNTY INVENTORY OF THE QUANTITY AND AVAILABILITY OF RESIDUES PRODUCED WITHIN THE CONTINENTAL UNITED STATES ARE GIVEN. TWO IMPORTANT FACTORS IN DETERMINING THE FEASIBILITY OF RESIDUE CONVERSION TO ENERGY ARE PRICE AND AVAILABILITY OF THE RESIDUES. EIGHT OF THE TEN STUDY AREAS HAVE SIGNIFICANT QUANTITIES OF RELATIVELY LOW-COST RESIDUES. THREE CURRENTLY AVAILABLE PROVEN TECHNOLOGIES, PROCESS STEAM PRODUCTION, ELECTRIC POWER GENERATION, AND ANAEROBIC DIGESTION OF RESIDUES TO PRODUCE METHANE GAS, ARE THE MOST ECONOMICALLY FEASIBLE CONVERSION POSSIBILITIES. RESIDUE CONVERSION BY THESE TECHNOLOGIES IS FREQUENTLY COST-COMPETITIVE WITH ENERGY PRODUCTION AT NEW FACILITIES FUELED WITH OIL, PROPANE, COAL, OR NATURAL GAS. (ERA CITATION 03:030558)
REPORTS AND PUBLICATIONS
REPORT IS AVAILABLE FROM NTIS / SPRINGFIELD, VA.

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00001449
PROJECT TITLE
THE GROUND WATER AND ENERGY SUPPLY SITUATION FOR GREAT PLAINS IRRIGATION
PROJECT NUMBER
NSF-AER77-17031

INVESTIGATORS
SANGHI, A. K. / JOHNSON, D.
RESEARCH INSTITUTION
WASHINGTON UNIV., CTR. FOR BIOL. OF NATURAL SYSTEMS /
ST. LOUIS, MO
PRIMARY SPONSOR
NATIONAL SCIENCE FOUNDATION, RANN
TIME FRAME
COMPLETED APRIL, 1978
LOCATION
TX / OK / KS / NE
ABSTRACT
THIS REPORT ASSESSES THE ENERGY SUPPLY AND GROUNDWATER SITUATIONS FOR IRRIGATION IN TEXAS, OKLAHOMA, KANSAS, AND NEBRASKA. THE HIGHLY SEASONAL DISTRIBUTION OF ELECTRICITY DEMAND FOR IRRIGATION CREATES A PEAK LOAD PROBLEM FOR ELECTRICITY COOPERATIVES IN THE REGION. THIS PROBLEM IS MOST SERIOUS IN NEBRASKA, WHERE IT HAS LED TO RESTRICTIONS OR DELAYS IN NEW IRRIGATION HOOKUPS. A SURVEY OF AVAILABLE DATA ON SATURATED THICKNESS OF THE AQUIFER, DEPTH TO WATER TABLE, AND ANNUAL RATE OF DECLINE (OR RISE) IN THE WATER TABLE WAS CONDUCTED FOR COUNTIES IN THE FOUR STATES OVERLYING THE OGALLALA FORMATION. THE MOST SERIOUS PROBLEMS ARE IN TEXAS, WHICH HAS THE GREATEST AVERAGE DEPTH TO THE WATER TABLE, THE GREATEST AVERAGE YEARLY WATER TABLE DECLINE, AND THE LOWEST AVERAGE SATURATED THICKNESS.
REPORTS AND PUBLICATIONS
THIS REPORT IS AVAILABLE FROM NTIS, SPRINGFIELD, VA.

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00001450
PROJECT TITLE
REGION AT THE CROSSROADS - THE PACIFIC NORTHWEST SEARCHES FOR NEW SOURCES OF ELECTRIC ENERGY
PROJECT NUMBER
EMD-78-76
RESEARCH INSTITUTION
U. S. GENERAL ACCOUNTING OFFICE, ENERGY & MINERALS DIV. /
WASHINGTON, D. C.
PRIMARY SPONSOR
U. S. GENERAL ACCOUNTING OFFICE, ENERGY & MINERALS DIV.
TIME FRAME
COMPLETED AUGUST, 1978
LOCATION
WA / OR / MT / ID
ABSTRACT
THIS REPORT DISCUSSES OPTIONS FOR THE PACIFIC NORTHWEST IN MEETING ITS ELECTRIC ENERGY NEEDS THROUGH THE YEAR 2000 AND THE BONNEVILLE POWER ADMINISTRATION'S ROLE IN MEETING THOSE NEEDS.
REPORTS AND PUBLICATIONS
THIS REPORT IS AVAILABLE FROM NTIS, SPRINGFIELD, VA.

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00001451
PROJECT TITLE
DEMAND RESPONSE TO INCREASING ELECTRICITY PRICES BY PACIFIC NORTHWEST IRRIGATED AGRICULTURE
PROJECT NUMBER
DOE-EW-78-C-80-0930
INVESTIGATORS
WHITTLESEY, NORMAN / BUTCHER, WALT / HAMILTON, JOEL /
RUSCH, JOHN / STOEVENER, HERB
THIS STUDY SOUGHT TO DETERMINE THE ELECTRICITY DEMAND RESPONSE OF IRRIGATED AGRICULTURE TO HIGHER PRICES OF ENERGY. A LINEAR PROGRAMMING APPROACH TO THE ANALYSIS WAS FOLLOWED USING TYPICAL FARMS IN EACH MAJOR IRRIGATED AREA TO ESTIMATE THE RESPONSE TO HIGHER ELECTRICITY PRICES.
PROJECT SUPERVISOR
REPORT IS AVAILABLE FROM NTIS, SPRINGFIELD, VA.
RESEARCH INSTITUTION
WASHINGTON STATE UNIV., DEPT. OF AG. ECONOMICS /
PULLMAN, WA.
COOPERATOR
IDAHO UNIV., DEPT. OF AG. ECON. / MOSCOW, ID.
OREGON STATE UNIV., DEPT. OF AG. & RESOURCE ECON. /
CORVALLIS, OR.
PRIMARY SPONSOR
BONNEVILLE POWER ADMIN. / PORTLAND, OREGON
TIME FRAME
COMPLETED JUNE, 1978
LOCATION
OR / MT / ID / WA
ABSTRACT
IRRIGATED AGRICULTURE IN THE PACIFIC NORTHWEST USES SUBSTANTIAL QUANTITIES OF ELECTRICITY TO PUMP WATER.

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00001452
PROJECT TITLE
A SURVEY OF THE POTENTIAL FOR PRODUCING GENERATING CAPACITY FROM INDUSTRIAL COGENERATION IN THE PACIFIC NORTHWEST
INVESTIGATORS
JOEL VAN ORNUM
RESEARCH INSTITUTION
ROCKET RESEARCH COMPANY / YORK CENTER / REDMOND,
WASHINGTON 98052

COOPERATOR

DWIGHT BUSHNELL, OREGON STATE UNIV. / RICHARD CRAIN, JR., WASHINGTON STATE UNIV. / GEORGE SIMMONS, UNIV. OF IDAHO; ALSO BPA & ENERGY DIV., DEPT. OF NATURAL RESOURCES, MONTANA FOR MONTANA PORTION OF STUDY.

PRIMARY SPONSOR

DEPT. OF ENERGY

SECONDARY SPONSOR

BONNEVILLE POWER ADMIN. / PORTLAND, OR 97208 / (503)234-5051
ROBERT TALLMAN

PRIMARY FUNDING AMOUNT

$80,000

TIME FRAME

JUNE, 1978 TO AUGUST, 1979

LOCATION

ID / OR / WA / WESTERN MT

ABSTRACT

THE OBJECTIVE OF PHASE I OF THIS STUDY WAS TO DETERMINE THE POTENTIAL FOR ELECTRICAL/PROCESS STEAM COGENERATION CAPACITY WITHIN 150 PLANTS IN WASHINGTON, OREGON, AND IDAHO. THE BONNEVILLE POWER ADMINISTRATION CONTRACTED WITH ROCKET RESEARCH COMPANY TO AUGMENT A PACIFIC NORTHWEST REGIONAL COMMISSION STUDY ON "INDUSTRIAL WASTE HEAT FOR ADJACENT COMMUNITIES AND INDUSTRIAL APPLICATIONS" SO THAT THE COGENERATION POTENTIAL COULD BE DETERMINED CONCURRENTLY. CONSEQUENTLY, THE PLANTS CHOSEN FOR THE PHASE I STUDY WERE SELECTED ON THE BASIS OF WASTE HEAT POTENTIAL AND NOT FOR OPTIMUM COGENERATION POTENTIAL. IN ADDITION, BPA UNDERTOOK A SEPARATE STUDY TO ASSESS THE COGENERATION POTENTIAL IN 17 INDUSTRIES IN WESTERN MONTANA.

THE BPA STUDY WAS BROKEN DOWN INTO FOUR PHASES. PHASE I HAS BEEN TO DETERMINE THE AMOUNT OF TECHNICALLY ACHIEVABLE COGENERATION POTENTIAL AVAILABLE FROM PACIFIC NORTHWEST INDUSTRIES; PHASE II WAS THE WESTERN MONTANA STUDY PERFORMED BY BPA AND THE STATE OF MONTANA; AND PHASE III IS THE ECONOMIC ANALYSIS OF THE 10 SAMPLE PLANTS REPRESENTING THE MAJOR INDUSTRIAL SECTORS WITH THE BEST COGENERATION POTENTIAL OF THE 20 BEING STUDIED IN TASK III OF THE PNRC PROGRAM. PHASE IV WILL INCLUDE AN ASSESSMENT OF THE DERIVED COGENERATION POTENTIAL OF ABOUT 450 PLANTS NOT SURVEYED AND A DETAILED ANALYSIS OF SIX PLANTS/PLANT CLUSTERS.

REPORTS AND PUBLICATIONS

INDUSTRIAL ELECTRICAL COGENERATION POTENTIAL IN THE BONNEVILLE POWER ADMINISTRATION SERVICE AREA. PHASE I. TECHNICAL ANALYSIS. SUBMITTED TO: BONNEVILLE POWER ADMINISTRATION, PORTLAND, OR 97208, JANUARY 19, 1979 BY ROCKET RESEARCH COMPANY, REDMOND, WASHINGTON.

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00001453

PROJECT TITLE

ENERGY RECOVERY TRAINING PROJECT

PROJECT NUMBER

(MT-P-009)

INVESTIGATORS

WALTER KING FOSTER

RESEARCH INSTITUTION

PYRAMID CHARITABLE TRUST / 13-14TH STREET SOUTH / P. O. BOX 41 / CONRAD, MONTANA 59425 / (406)761-0310

PRIMARY SPONSOR

NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY

PRIMARY FUNDING AMOUNT

$4,945.00

TIME FRAME

FEBRUARY, 1978 TO MAY, 1978

STATUS

COMPLETED MAY, 1978

LOCATION

MT / GREAT FALLS

ABSTRACT

THE PURPOSE OF THIS PROJECT WAS TO DEMONSTRATE THAT LOW INCOME INDIVIDUALS CAN BE TRAINED TO FABRICATE, INSTALL, AND MAINTAIN METHANE GAS GENERATING SYSTEMS. THIS PROGRAM TRAINED FIVE LOW INCOME PERSONS FOR A 12-WEEK PERIOD ON THE FUNDAMENTALS OF ANEROBIC DIGESTOR TECHNOLOGY. THE INDIVIDUALS WERE ALSO GIVEN FIELD DEMONSTRATIONS AND INSTRUCTED IN THE END USES OF ANEROBIC DIGESTORS.

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00001454

PROJECT TITLE

REVIEW AND EVALUATION OF THE NEBRASKA GASOHOL ECONOMIC FEASIBILITY STUDY

PROJECT NUMBER

G & C 810

INVESTIGATORS

R. CLYDE GREER / R. J. MCCONNEN / RICHARD STROUP

RESEARCH INSTITUTION

MONTANA STATE UNIV. DEPT. OF AG. ECONOMICS & ECONOMICS / BOZEMAN, MT 59717 / 406/494-3701

PRIMARY SPONSOR

OLD WEST REGIONAL COMMISSION

PRIMARY FUNDING AMOUNT

$1,000

STATUS
COMPLETED JUNE, 1979

LOCATION
NATIONWIDE

REPORTS AND PUBLICATIONS
THE PURPOSE OF THIS PROJECT WAS TO PREPARE FOR THE OLD WEST REGIONAL COMMISSION A REVIEW AND EVALUATION OF THE NEBRASKA GASOHOL FEASIBILITY STUDY TO DETERMINE THE ADEQUACY OF THE STUDY AND THE IMPLICATIONS OF A GASOHOL PROGRAM.

4.0 NUCLEAR ENERGY

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00001455
PROJECT TITLE
PRELIMINARY ASSESSMENT OF NUCLEAR ENERGY CENTERS AND ENERGY SYSTEMS COMPLEXES IN THE WESTERN UNITED STATES. FINAL REPORT.
PROJECT NUMBER
W-7405-ENG-26
INVESTIGATORS
GOTTLIEB, P. / ROBINSON, J. H. / SMITH, D. R.
RESEARCH INSTITUTION
DAMES AND MOORE / LOS ANGELES, CA
PRIMARY SPONSOR
U. S. DEPT. OF ENERGY
TIME FRAME
COMPLETED FEBRUARY, 1978
LOCATION
AZ / CA / CO / ID / MT / NV / NM / OR / UT / WA / WY
ABSTRACT
THE NUCLEAR ENERGY CENTER SITING OPPORTUNITIES IN THE ELEVEN WESTERN STATES HAVE BEEN SYSTEMATICALLY EXAMINED. THE STUDY AREA HAS BEEN DIVIDED INTO 10-MILE BY 10-MILE GRID CELLS, AND EACH CELL HAS BEEN EVALUATED IN TERMS OF OVERALL SUITABILITY AND SITE-RELATED COSTS. COMPOSITE SUITABILITY CONSISTS OF A WEIGHTED SUM OF OF TEN IMPORTANT NUCLEAR POWER PLANT SITING ISSUES; THE PARTICULAR WEIGHTS USED FOR THIS STUDY WERE DECIDED BY A DELPHI SESSION OF TWENTY INDIVIDUALS WITH ENERGY FACILITY SITING EXPERTISE, WITH AT LEAST ONE REPRESENTATIVE FROM EACH OF THE ELEVEN WESTERN STATES. SITE-RELATED COSTS CONSIST OF THE ADDITIONAL EXPENDITURES REQUIRED FOR SEISMIC HARDENING (IN SEISMICALLY ACTIVE AREAS), ELECTRIC POWER TRANSMISSION LINES (FOR SITES SIGNIFICANTLY FAR FROM LOAD CENTERS), AND WET/DRY COOLING SYSTEM COSTS (LIMITED WATER AVAILABILITY AND/OR HIGH SUMMER TEMPERATURES). (ERA CITATION 03:040341)
REPORTS AND PUBLICATIONS
THIS REPORT IS AVAILABLE FROM NTIS, SPRINGFIELD, VA.

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00001456

PROJECT TITLE
MONTANA POWER COMPANY CORRECT FURNACE SIZING PROGRAM

INVESTIGATORS
PETER S. ANTONIOLI

RESEARCH INSTITUTION
MONTANA POWER COMPANY / 40 EAST BROADWAY /
BUTTE, MT 59707 / (406)723-5421

PRIMARY SPONSOR
MONTANA POWER CO.

PRIMARY FUNDING AMOUNT
$1,500

TIME FRAME
JANUARY, 1978 TO CONTINUING

LOCATION
MT

ABSTRACT
MONTANA POWER COMPANY HAS A PROGRAM UNDERWAY TO TRAIN CONSUMER REPRESENTATIVES UTILIZING NEW HEAT LOSS DESIGN CALCULATIONS, TO MORE CLOSELY MATCH FURNACE SIZE TO ACTUAL HOUSE HEAT LOSS RESULTING IN ENERGY SAVINGS. PLANNING IS ALSO BEING DONE TO EXAMINE ALL TYPES OF EXISTING FURNACE MODIFICATION IN ORDER TO INCREASE EFFICIENCIES.

*****

00001457

PROJECT TITLE
WEATHERIZATION TRAINING WORKSHOP

PROJECT NUMBER
(MT-P-002)

INVESTIGATORS
BOB HADDOCK

RESEARCH INSTITUTION
OPPORTUNITIES, INC. / P. O. BOX 2532 / GREAT FALLS,
MONTANA 59403 / (406)761-0310, EXT. 34 OR 43

COOPERATOR
TERRY SPEELMAN, O.E.F.C.

PRIMARY SPONSOR
NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY

PRIMARY FUNDING AMOUNT
$258.35

TIME FRAME
JUNE, 1977 TO JUNE, 1977

STATUS
COMPLETED JUNE, 1977

LOCATION
MT

ABSTRACT
THIS GRANT WAS FOR A 2 DAY WORKSHOP TO TRAIN CETA EMPLOYEES ON WEATHERIZATION TECHNIQUES. A STAFF MEMBER FROM THE NATIONAL CENTER FOR APPROPRIATE TECHNOLOGY IN BUTTE, MONTANA, CONDUCTED THE WORKSHOP.

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00001458

PROJECT TITLE
BONNEVILLE POWER ADMINISTRATION ELECTRIC ENERGY CONSERVATION STUDY

PROJECT NUMBER
14-03-6100N

INVESTIGATORS
GEORGE CRANDALL / FRANCES DIEMOZ / KENNETH GERLACH /
PERRY GUJNAL / HOWARD MCKEE / ROBERT MURRAY / JANET
SCHAEFFER

RESEARCH INSTITUTION
SKIDMORE, OWINGS, AND MERRILL / 900 SW FIFTH / PORTLAND,
OREGON 97205 / 503 226-1481

PRIMARY SPONSOR
BONNEVILLE POWER ADMIN.

PRIMARY FUNDING AMOUNT
$100,000

TIME FRAME
JANUARY, 1976 TO JUNE, 1976

STATUS
JUNE, 1976

LOCATION
PACIFIC NORTHWEST REGION / OR / WA / ID / MT / THE STUDY COVERS THE AREA SERVED BY THE WEST GROUP CONSORTIUM OF UTILITY COMPANIES.

ABSTRACT
THE POTENTIAL FOR CONSERVATION TO REDUCE FORECASTED ELECTRIC ENERGY NEEDS IN THE PACIFIC NORTHWEST IS ANALYZED IN THIS STUDY. TO DEMONSTRATE THIS POTENTIAL, THE STUDY EXAMINES THE ENERGY SAVINGS AND IMPACTS FOR A VARIETY OF CONSERVATION STRATEGIES, RANGING FROM A MINIMUM TO A MAXIMUM EFFORT. THE STRATEGIES OUTLINE THE STEPS THAT STATE, LOCAL AND FEDERAL GOVERNMENTS CAN TAKE TO ENCOURAGE ADOPTION OF SPECIFIC CONSERVATION MEASURES. NONE OF THE MEASURES REQUIRE CURTAILMENT OF ENERGY-USING PRACTICES. ENERGY CONSERVATION IS DEFINED IN THE STUDY AS IMPROVING THE EFFICIENCY OF ENERGY USE. THE POTENTIAL FOR CONSERVATION IN THE REGION RANGES FROM 5 TO 33 PERCENT OF THE 1995 FORECAST DEMAND.

REPORTS AND PUBLICATIONS
BONNEVILLE POWER ADMINISTRATION ELECTRIC ENERGY CONSERVATION STUDY, SKIDMORE, OWINGS AND MERRILL, PREPARED FOR THE BONNEVILLE POWER ADMINISTRATION, JUNE 1976 (AVAILABLE FROM NTIS, U. S. DEPT. OF COMMERCE, SPRINGFIELD, VA 22161, PB 256-766)

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00001459
PROJECT TITLE
SOCIAL AND ECONOMIC CONSEQUENCES OF COAL DEVELOPMENT IN THE NORTHERN GREAT PLAINS -- DATA RETRIEVAL SYSTEM
INVESTIGATORS
LLOYD D. BENDER / JACK GILCHRIST
RESEARCH INSTITUTION
MONTANA STATE UNIV., DEPT. OF AG. ECONOMICS & ECONOMICS / BOZEMAN, MT 59717 / 406/994-3701
COOPERATOR
ECONOMIC DEVELOPMENT DIVISION / ESCS/USDA, WASHINGTON, D. C. / U. S. E.P.A.
PRIMARY SPONSOR
U. S. DEPT. OF AGRICULTURE. ECONOMIC DEV. DIV.
SECONDARY SPONSOR
MONTANA STATE UNIV.
U. S. EPA
PRIMARY FUNDING AMOUNT
$10,000
SECONDARY FUNDING AMOUNT(S)
$10,500
TIME FRAME
OCTOBER, 1978 TO SEPTEMBER, 1979
LOCATION
NORTHERN GREAT PLAINS
ABSTRACT
THIS PROJECT IS TO DEVELOP A SYSTEM OF RAPID ACCESS TO COUNTY DATA AS A SOURCE OF HISTORICAL DATA RELATING TO ENERGY DEVELOPMENT AND ITS IMPACT. THE DATA RETRIEVAL SYSTEM CALLED GRASP IS BEING ADAPTED FOR THIS PURPOSE. DEMONSTRATION OF THE FEASIBILITY OF RAPID ACCESS AND ITS LOW COST ARE THE MAJOR OBJECTIVES OF THIS PROJECT.

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00001460
PROJECT TITLE
MINING AND MINERAL LAWS
RESEARCH INSTITUTION
WYOMING GEOLOGICAL SURVEY / BOX 3008, UNIVERSITY STATION / LARAMIE, WY 82071 / (307)742-2054
PRIMARY SPONSOR
WYOMING GEOLOGICAL SURVEY / DAVID COPELAND / BOX 3008, UNIVERSITY STATION / LARAMIE, WY 82071 / (307)742-2054
TIME FRAME
1973 TO CONTINUING
LOCATION
WY
ABSTRACT
THIS STUDY IS TO PRODUCE A PUBLICATION WHICH IS AN INDEXED COMPENDIUM OF THE MINING AND MINERAL LAWS OF WYOMING. THE REPORT INCLUDES 1974, 1975, 1976, AND 1977 SUPPLEMENTS.
REPORTS AND PUBLICATIONS
MINING AND MINERAL LAWS OF WYOMING THROUGH 1973, 2ND ED., WITH SUPPLEMENTS THROUGH 1977: GEOLOGICAL SURVEY OF WYOMING MISCELLANEOUS PUBLICATION, 1977 / AVAILABLE FROM: GEOLOGICAL SURVEY OF WYOMING / BOX 3008, UNIVERSITY STATION / LARAMIE, WY 82071 / $5.50 WITH SUPPLEMENTS / SUPPLEMENTS 50 CENTS EACH ALONE

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00001461
PROJECT TITLE
MONTANA ENERGY RESEARCH INVENTORY
INVESTIGATORS
NANCY MCLANE
RESEARCH INSTITUTION
MONTANA ENERGY OFFICE / CAPITOL STATION / HELENA, MT 59601 / (406)449-3940
PRIMARY SPONSOR
MONTANA STATE GOVERNMENT
TIME FRAME
1975 TO CONTINUING
LOCATION
MT
ABSTRACT
DESCRIPTION: THE MONTANA ENERGY OFFICE HAS, AS ONE OF ITS PRIMARY FUNCTIONS, THE RESPONSIBILITY FOR COORDINATION OF ENERGY-RELATED RESEARCH ACTIVITIES WITHIN STATE GOVERNMENT. IN PARTIAL FULFILLMENT OF THIS RESPONSIBILITY, MEO HAS ESTABLISHED THE MONTANA ENERGY RESEARCH INVENTORY WHICH IS USED TO KEEP TRACK OF ALL ONGOING AND RECENTLY COMPLETED ENERGY RESEARCHING OCCURRING IN OR FOR MONTANA. THE ENERGY RESEARCH INFORMATION INVENTORY PROVIDES A NECESSARY INFORMATION TOOL FOR RESEARCHERS, STATE GOVERNMENT PLANNERS AND DECISION MAKERS, AND OTHERS INVOLVED IN ENERGY ACTIVITIES. BY MAINTAINING A CENTRAL, COMPREHENSIVE AND UP-TO-DATE INVENTORY OF ENERGY-RELATED RESEARCH, MEO HOPES TO: (1) ENHANCE COMMUNICATION AMONG ENERGY RESEARCHERS; (2) AVOID UNNECESSARY DUPLICATION OF EFFORT; (3) HELP FUNDING AGENCIES PINPOINT AREAS OF ADDITIONAL RESEARCH NEEDS; AND (4) PERMIT THE EFFECTIVE UTILIZATION OF RESEARCH BY INTERESTED PERSONS. TO ACCOMPLISH THE ABOVE STATED OBJECTIVES, THE ENERGY RESEARCH INVENTORY (1) MAINTAINS AN ENERGY RESEARCH MATRIX BOARD, WHICH IS CONTINUOUSLY UPDATED, FOR

QUICK REFERENCE TO INFORMATION ON MONTANA ENERGY RESEARCH; (2) MAINTAINS RESEARCH INFORMATION FILES; (3) PREPARES AN ANNUAL PUBLICATION IN WHICH ALL PROJECT INFORMATION IS SUMMARIZED IN A COMPREHENSIVE REPORT; AND (4) PROVIDES A SEARCH AND REFERRAL SERVICE FOR INDIVIDUALS WHO WISH TO OBTAIN UP-TO-DATE INFORMATION ON THE STATUS OF ANY PROJECT.

REPORTS AND PUBLICATIONS

PUBLICATIONS: (1) A DIRECTORY OF MONTANA ENERGY RESEARCH AND DEVELOPMENT PROJECTS -- JANUARY 1978. PREPARED BY NANCY MCLANE, MONTANA ENERGY OFFICE; (2) MONTANA ENERGY RESEARCH -- SUMMER 1976. PREPARED BY KATHY ALBERTSEN VAN HOOK AND JAMES H. NYBO, MONTANA ENERGY OFFICE, SEPTEMBER 1976; (3) ENERGY RESEARCH IN THE COLSTRIP, MONTANA, AREA, SUMMER 1975. PREPARED BY JAMES H. NYBO, MONTANA ENERGY OFFICE. THESE PUBLICATIONS ARE AVAILABLE FROM THE MONTANA ENERGY OFFICE, CAPITOL STATION, HELENA, MT 59601.

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00001462

PROJECT TITLE

PACIFIC NORTHWEST SITING STUDY

INVESTIGATORS

BOB LABRIE

RESEARCH INSTITUTION

MONTANA POWER CO. / 40 EAST BROADWAY / BUTTE, MT 59707 / (406)723-5421

COOPERATOR

OTHER PACIFIC NORTHWEST UTILITIES

PRIMARY SPONSOR

MONTANA POWER CO.

SECONDARY SPONSOR

OTHER PACIFIC NORTHWEST UTILITIES

LOCATION

MT / ID / WA

ABSTRACT

MONTANA POWER IS PARTICIPATING WITH A NUMBER OF OTHER UTILITIES IN THE PACIFIC NORTHWEST IN A PROJECT TO CATALOG STEAM ELECTRIC, NUCLEAR, AND COAL-FIRED GENERATING PLANT SITES IN THE PACIFIC NORTHWEST.

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00001463

PROJECT TITLE

A STUDY OF THE FEASIBILITY OF INDUSTRIAL CO-GENERATION IN MONTANA

INVESTIGATORS

PETER S. ANTONIOLI

RESEARCH INSTITUTION

MONTANA POWER COMPANY / 40 EAST BROADWAY / BUTTE, MT 59707 / (406)723-5421

PRIMARY SPONSOR

MONTANA POWER CO.

PRIMARY FUNDING AMOUNT

FY78-$1,200; FY79-$4,000

TIME FRAME

DECEMBER, 1978 TO JANUARY, 1981

LOCATION

MT

ABSTRACT

DURING THE PAST YEAR, SEVERAL OF THE MAJOR INDUSTRIAL ELECTRICAL CONSUMERS HAVE BEEN ASKED TO REVIEW THEIR INDUSTRIAL PROCESSES TO DETERMINE THE FEASIBILITY OF ELECTRICAL CO-GENERATION. IT IS PLANNED THAT ALL MAJOR INDUSTRIAL CUSTOMERS WILL BE CONTACTED TO EVALUATE IF ELECTRICAL CO-GENERATION IS POSSIBLE. PRESENTLY MONTANA POWER CO. HAS ONE CO-GENERATION CUSTOMER IN ITS SYSTEM, AND IT IS HOPED THAT THIS NUMBER CAN BE EXPANDED.

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00001464

PROJECT TITLE

NATIONAL ENERGY TRANSPORTATION STUDY

INVESTIGATORS

DANIEL H. WEDDERBURN

RESEARCH INSTITUTION

U. S. DEPT. OF ENERGY, RESOURCE APPLICATIONS / 1200 PENNSYLVANIA AVE., N. W. / WASHINGTON, D. C. 20461 / 202/633-8828

COOPERATOR

U. S. DEPT. OF TRANSPORTATION / JOHN HARMAN

PRIMARY SPONSOR

U. S. DEPT. OF TRANSPORTATION

SECONDARY SPONSOR

U. S. DEPT. OF ENERGY

PRIMARY FUNDING AMOUNT

$550,000

SECONDARY FUNDING AMOUNT(S)

$140,000

TIME FRAME

JUNE 1978 TO DECEMBER 1979

LOCATION

U. S. & INCLUDES DISAGGREGATING FORECASTED ENERGY SUPPLY DEMAND DATA INTO 173 BEA (BUREAU OF ECONOMIC ANALYSIS) GEOGRAPHICAL REGIONS.

ABSTRACT

THE OBJECTIVE OF THIS STUDY IS TO DETERMINE THE ABILITY OF THE NATION'S TRANSHORTATION

SYSTEM TO MOVE THE ENVISIONED MIX OF ENERGY SUPPLIES TO MARKET TO 1985 AND BEYOND. IT COVERS ALL ENERGY TYPES AND ALL TRANSPORTATION MODES. BASED ON PROJECTED ENERGY SUPPLY & DEMAND FUTURES, THE STUDY WILL SEE WHAT ADDITIONS TO RAIL, PIPELINE, MARINE AND TRUCK CAPACITY MAY BE NEEDED AND THE ABILITY OF EACH TRANSPORTATION MODE OF FINANCE THESE CAPACITY ADDITIONS. THE STUDY IS ALSO LOOKING AT A NUMBER OF ISSUES RELATING TO ENERGY TRANSPORTATION. EXAMPLES INCLUDE USE OF COAL SLURRY PIPELINES, PIPELINE TARIFFS, & THE IMPACT OF INCREASED COAL UNIT-TRAIN TRAFFIC ON LOCAL COMMUNITY ENVIRONMENTS.

LOCATION-STATE INDEX

THE LOCATION-STATE INDEX CONTAINS STATE NAMES, UTILIZING THE STANDARD TWO-DIGIT ABBREVIATIONS.

OTHER LOCATION NAMES SUCH AS COUNTIES, RIVER BASINS AND GEOGRAPHIC FORMATIONS CAN BE FOUND IN THE SUBJECT INDEX.

LOCATION-STATE INDEX

AK
00001413

AZ
00001368 00001372 00001378 00001413 00001416 00001441 00001442 00001443 00001455

CA
00001378 00001441 00001442 00001443 00001448 00001455

CO
00001368 00001369 00001370 00001372 00001378 00001384 00001401 00001402 00001410 00001413 00001416
00001418 00001420 00001428 00001443 00001448 00001455

DL
00001448

FL
00001448

GX*
00001368 00001382 00001383 00001405 00001408 00001419 00001424 00001447 00001459 00001464

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HI
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ID
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00001452 00001455 00001458 00001462

IL
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IN
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KS
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KY
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LA
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MA
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ME
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MI
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MN
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00001403 00001407 00001409 00001411 00001414 00001416 00001418 00001420 00001422 00001431 00001446
00001448

NE
00001366 00001375 00001378 00001384 00001403 00001409 00001411 00001422 00001426 00001434 00001446
00001449

*GX signifies projects of general applicability not geographically bound to a state

LOCATION-STATE INDEX

NM

00001368 00001369 00001370 00001372 00001378 00001410 00001413 00001416 00001418 00001441 00001442
00001455

NV

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OH

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OK

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OR

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SD

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00001409 00001411 00001416 00001418 00001422 00001433 00001439 00001446

TX

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UT

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00001442 00001443 00001455

VA

00001402

WA

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WI

00001431

WY

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00001384 00001386 00001397 00001399 00001400 00001402 00001403 00001404 00001409 00001410 00001411
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00001440 00001443 00001455 00001460

PERSONAL NAME INDEX

THE PERSONAL NAME INDEX CONTAINS THE NAMES OF THE INVESTIGATORS, SUPERVISORS, PROJECT MONITORS AND OFFICERS, AND AUTHORS OF PUBLICATIONS FOR EACH PROJECT.

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